QUANTITATIVE INDICATORS FOR DEFENSE ANALYSIS. VOLUME III. APPENDICES

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13. ABSTRACT

This report develops and demonstrates various means of using quantitative indicator technology in analyzing and predicting future international trends. Three generic types of indicators were created to enhance the analysts abilities to estimate future international interaction trends: international, internal, and economic. Issue content, intensity of participation, behavioral tone, and other types of indicators were used. Two innovative methodologies were devised to help the policy analyst: Event Patterning for Decision Analysis which combines usually and statistically the attributes of interactive tone, intensity, and time; and Power Strategy Impact Analysis, involving aspects of power strategies in statistical analyses of interactive tone over time. The results were a number of techniques of potential use to the analyst of international behavior.

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PREFACE

This report describes research efforts undertaken by CACI, Inc., to develop and apply quantitative indicators to national security problems. This research was supported by the Defense Advanced Research Projects Agency, Contract No. MDA903-75-C-0013.

The report consists of two volumes. Volume I, the Executive Summary, is a non-technical review of the research accomplishments with special emphasis on their potential, immediate applications within the defense and intelligence communities. Volume II, the Technical Report, begins with an expanded, somewhat more technical, summary of the specific results of the fiscal 1975 research effort (Chapter 1). Chapters 2 through 9 review the research effort in detail. Volume III contains appendices to the Technical Report. Procedures and rationale for new indicators and methodologies for manipulation are described. These indicators and methodologies are then applied to research questions concerning the national security behavior of Japan and the results are reported and evaluated.

PROJECT PARTICIPANTS

The final report was prepared by:

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APPENDIX

C.A.C.I.

WASHINGTON, D.C. OFFICES

CODEBOOK FOR
DEFENSE EVENTS CODING SCHEME FOR
DOMESTIC AND INTERNATIONAL EVENTS

Revisions to Codebook made November 1974,
and 1974 Data Recoded as per Revisions

M. Hayes
B. Spector

Original Codebook
by

Vivian Moore

June 1974

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INTRODUCTION

This report presents the Defense Events Coding Scheme (DECS) for coding international and domestic events. The coding system was developed to (1) increase the detail in international events categories in the World Event/Interaction Survey (WEIS) coding project; (2) add new components to the WEIS coding system (e.g., subnational actors and targets); and (3) develop an initial list of domestic events categories. The international events in DECS comprise the 63 WEIS events categories plus about 40 new international events. The domestic events were selected from among several domestic events coding schemes and included some newly developed domestic events categories. The coding system was applied to four years (1971-1974) of Japanese interactions reported in the Foreign Broadcast Information Service Bulletin (FBIS).

The report is divided into four sections. Section I describes revisions of the original Defense Events Coding Scheme. Section II, the components of DECS; Section III, the rules for coding; and Section IV, procedures for writing textual abstracts for each event coded.

I. EXPLANATION OF REVISIONS

DEFINITION OF AN EVENT

The original Defense Events Coding Scheme (DECS) defined an event as "any distinct, human activity." This definition was a departure from definitions used in other events coding schemes in that it (1) encompassed a much larger range of behavior, and (2) had no theoretical or historical basis. Several members of the Indicator Project argued that a more precise definition, rooted in the events literature, would be more useful for analytic purposes. Consequently, the author reviewed major international and domestic events coding schemes to establish a viable definition of an event.

International Events

An "event," specifically an "international event," has been variously defined. Charles McClelland (World Event/Interaction Survey) considers an event a specific official statement or action that crosses a national boundary (Fitzsimmons, 1969; Truesdell, 1973). Edward Azar (Conflict and Peace Data Bank) is more general in his definition. He considers an event an overt action that may affect the behavior of other international system actors (1970). Patrick McGowan (Comparative Study of Foreign Policy) similarly notes that an action is taken to affect the behavior of the recipient (1970). Charles Hermann (CREON) defines an international event as "purposeful behavior which may be either verbal or nonverbal and which is initiated by some human actor who represents the executive of a state" (1970).

Drawing upon these definitions an international event must, for the purposes of DECS, satisfy the following criteria:[1]

[1] These criteria are mutually exclusive. For example, an event that satisfies the third criterion need not involve an official government spokesman (criterion 1).

1. Occur across national boundaries (between two or more nations, international organizations, or groups), or

2. Involve at least one official government spokesman or group (e.g., President, Congress), or

3. Constitute a political relationship between two or more actors in the international system.

Domestic Events

A review of the literature of domestic conflict suggests a number of approaches to defining an "internal" or "domestic event." Taylor and Hudson (1970) and the Feierabends (1968) contend that domestic events involve the political system in one way or another. Taylor and Hudson suggest that political structure, political participation, and the relationship between the rulers and the ruled are important dimensions of domestic political behavior, or "events." James Rosenau (1968) posits three dimensions of domestic political behavior--internal war, authority (e.g., roles), and personnel and structural conflicts (e.g., internal power conflicts). John Sullivan (1969) agrees that "political" or "ideological" disputes are important phenomena that must be considered.

One other significant dimension is that of anomic versus organized activity. Charles Tilly (1973) suggests that political turmoil may be anomic (e.g., riots) or tactical (e.g., terrorist bombings). Both the Feierabends and Taylor and Hudson agree with this basic dichotomy.

Drawing upon these definitions a domestic event must, for the purposes of DECS, satisfy the following criteria:[2]

1. Involve the national government directly, that is, the event as reported must pertain to the executive structure (e.g., governmental changes, changes in personnel, laws), or

---

[2] Again, these criteria are mutually exclusive.

2. Constitute political participation,[3] either anomic or structural, by any actor, including aggregates such as political parties and lobbying organizations, or

3. Constitute a relationship between the rulers and the ruled in the political system (e.g., declaration of martial law, lifting of restrictions).

Non-Interactive Events

Non-interactive events are occurrences that may be historically important but have either no specific actor or target such as the death of a president or the occurrence of a natural disaster. These events are coded "0" in the actor or target column, depending upon which is not relevant.

EVENT CODES

The original coding scheme was designed to develop a more detailed list of event codes, and to bring together event codes that could be applied to both international and domestic actions. There were several problems with this approach.

First, the 128 DECS codes were derived partly from WEIS and from ad hoc selection. The final original coding scheme, however, was a relatively complete departure from WEIS and other existing events coding schemes since it had a different overall structure and contained different categories and numeric codes.

Since WEIS had been used from the inception of the Indicator Project, it seemed reasonable to increase its detail rather than to develop a totally new system that would not be comparable to any other. An increase in detail in an already existing system would make it possible to compare the systems to determine whether the increase is actually necessary and useful for analysis. Therefore, the following rules were used in the revision of DECS

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[3] Political participation is any action aimed at influencing government policy, behavior, structure, or participants.

international events categories:

1. When a DECS event could be subsumed under an already existing WEIS event category, the DECS event was eliminated.

2. When a DECS event could be subsumed under a WEIS combined event category, but no event code fit the event, a new code under the appropriate WEIS category was created for the event.

3. When no WEIS combined event category fit the DECS event, a new combined event category plus event categories under that combined event category was created for the DECS event.

In this way, approximately 25 new events were added to the WEIS system from the DECS codes. This represents a 40 percent increase in detail in the WEIS coding scheme, an increase that should be more than adequate for testing whether more detail in coding actually is desirable and workable.

The total number of international events categories in the revised scheme is approximately 84. It seems more reasonable to work with a 40 percent increase in detail on an already existing and tested system than to use a completely untested system that represents a 100 percent increase in detail. If the WEIS system (as revised) indicates that more detail would be useful after being tested, then that change could be made in the coding system.

The second problem was that DECS did not separate the international and domestic events domains. Each event code theoretically could be applied to either international or domestic situations. This assumes that a particular international event is comparable to the same domestic event. For example, a meeting of Israeli and Egyptian negotiators would be comparable to a Congressional committee meeting.

The literature concerning international and domestic events domains presents evidence that these domains are separate and generally unrelated. Rummel (1963) and Tanter (1966) questioned the commonly held notion that the two domains are related. Their analyses indicated that the domestic and external politics of nations are largely independent of one another. Burrowes and Spector (1972) factor analyzed Syrian external and domestic events and presented further evidence confirming the independence of the two domains.

Three major studies that code both domestic and external events separate the two domains. These studies are:

- Robert Burrowes, Middle East Conflict and Cooperation (MECCA) Project
- Rudolph Rummel, Dimensionality of Nations (DON) Project (also Tanter, 1966; Wilkenfeld, 1972; Banks, 1972)
- Charles Taylor and Michael Hudson, World Handbook of Political and Social Indicators, II

It seems more sensible to rely on past-tested systems of coding domestic events than to operate with an entirely new, untested category system, at least for an initial test of a new coding scheme. Therefore, the following rules were used to develop a category system for domestic events separate from international events:

1. Categories were selected from the following major domestic events studies:
   (a) Robert Burrowes, MECCA Project
   (b) John Collins, Foreign Conflict Behavior and Domestic Disorder in Africa
   (c) Ivo and Rosalind Feierabend, Political Events Project
   (d) Rudolph Rummel, DON Project
   (e) Charles Taylor and Michael Hudson, World Handbook of Political and Social Indicators, II
2. The various categories were combined and identical categories eliminated.
3. Combined events categories from the DECS international events scheme were added where the categories did not match already selected domestic codes.
4. Slightly more detail was added by the authors.

The addition of combined events categories enriched the domestic events detail, particularly in the areas of verbal cooperation and verbal conflict. There are approximately 75 domestic events categories.

II. CODING SYSTEM

COMPONENTS

The Defense Events Coding Scheme consists of two parts: the analytic/numeric codes, and the textual narrative of the events. Coders select events, assign them numeric codes, then write a brief textual description of each coded event.

Analytic components of DECS are as follows:

- Date
  The day, month, and year in which the event is reported to have occurred.

- Actor
  International actor is the country, group, region, or international organization that initiates the event.

  Subnational actor is the person or group initiating the event.

- Event
  Character: international, domestic, or non-interactive.
  Event: type of event.
  Length: discrete or continuous.

- First (direct) target
  International target is the country, group, region, or international organization that receives the event.

  Subnational target is the person or group at whom the event is directed.

- Second (indirect) target
  International target is any country, group, region, or international organization other than the first target about which the event occurs.

- Subject
  A general topic of the coded event.

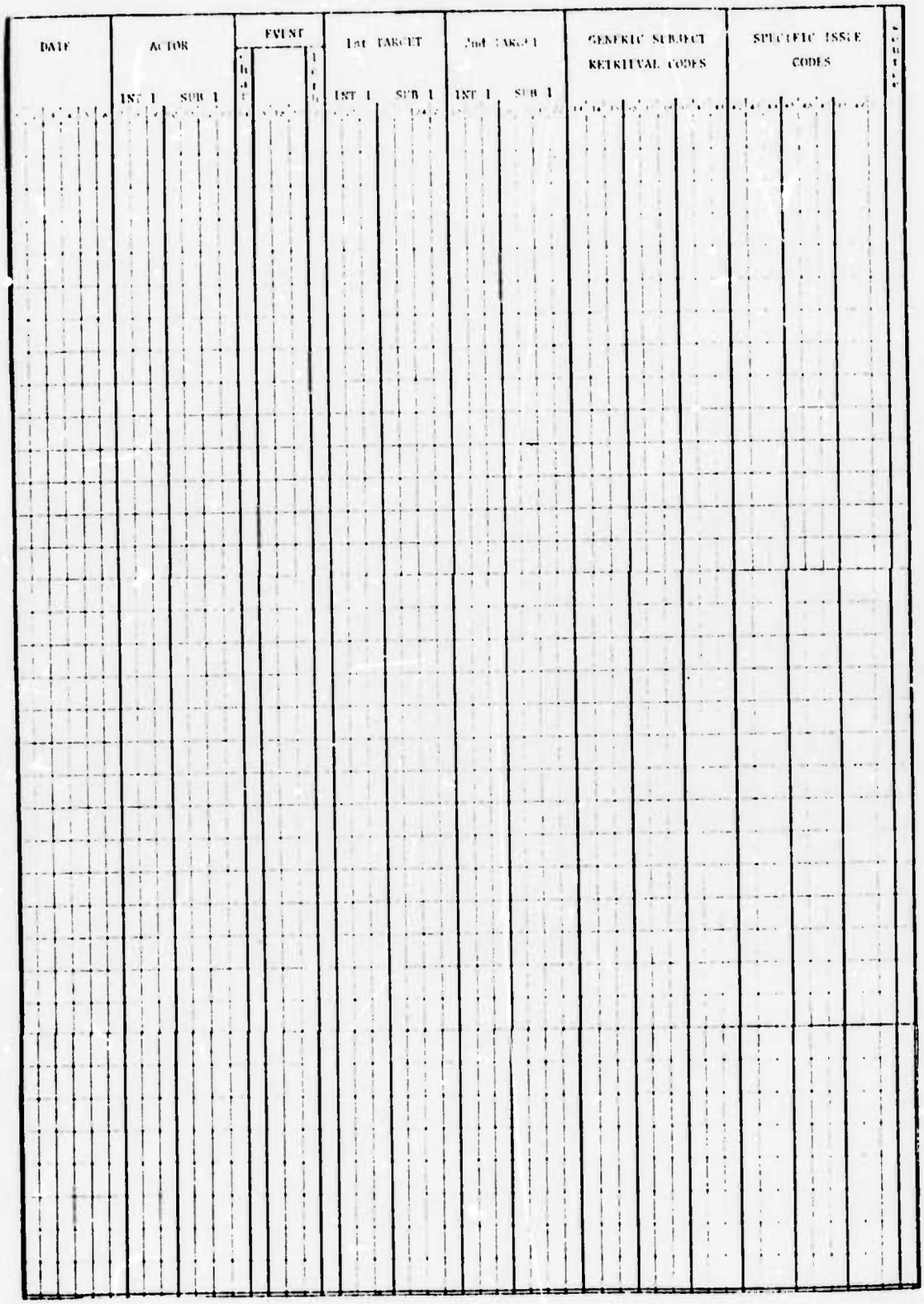
- Issue
  A particular issue and issue position associated with the event.

- Source
  A code for the data source.

ALL CODES ARE RIGHT JUSTIFIED, THAT IS, FOR EACH CATEGORY, THE ANALYTIC CODE MUST END IN THE FURTHEST RIGHT-HAND COLUMN OF THAT CATEGORY. For example, there are nine columns for the subject codes. Each subject code is three digits. If there are only two subject codes, the codes would appear in columns 36-41. Below is a list of the categories and columns of each code.

Coded Item	Column
Day	1-2
Month	3-4
Year	5-6
International Actor	7-9
Subnational Actor	11-13
Character of Event	14
Event Code	15-17
Length of Event	18
1st Target (International)	19-21
1st Target (Subnational)	23-25
2nd Target (International)	26-28
2nd Target (Subnational)	30-32
Subject	33-35, 36-38, 39-41
Issue	46-49
Issue Position	50
Source	51

A sample code sheet is shown on the following page.


DATE
ACTOR
INT 1
SUB 1
EVENT
1st TARGET
INT 1
SUB 1
2nd TARGET
INT 1
SUB 1
GENERIC SUBJECT RETRIEVAL CODES
SPECIFIC ISSUE CODES

III. CODING RULES

DATE

The date is the specific date on which the event occurred. It includes the day, month, and year in which the event is reported. The following codes are used for the date.

Day = 01-31
Month = 01-12
Year = 00-99 (last two digits of the year)

Example: January 3, 1972 = 030172[4]

If only the month and year are known, the day is coded "00." If only the quarter or semi-annual period in which the event occurred is mentioned, the month is coded 8Y where Y is the quarter (i.e., 1,2,3 or 4) of the year Y; or 9X, where X is the first or second 6-month period (i.e., 1,2) of the year.

If there is insufficient information to specify the day, month, quarter, or semi-annual period of an event, "0" and "0" will be entered in both columns. DURING CODING, THE INABILITY TO ENTER A SPECIFIC CODE FOR ANY OF THE CATEGORIES WILL BE DENOTED BY A ZERO (0) ON THE CODE SHEET IN THE FURTHEST RIGHT-HAND COLUMN OF THE SPECIFIC CATEGORY.

INTERNATIONAL ACTOR

The international actor is the country, group, region, or international organization that initiates the action. THERE MUST ALWAYS BE A CODE FOR INTERNATIONAL ACTOR. Table 1 contains a list of these actors that includes:

- All independent countries
- Selected major colonies/protectorates

[4] For 1974 data, the date variable is coded as "Year-Month-Day".

- Selected intergovernmental organizations
- Selected "other entities" and regions[5]

The coder should determine the nationality of the entity that is performing the event. Occasionally, questions of mixed nationality occur (e.g., a journalist or businessman who is a citizen of nation X works for a news agency or business which is of a different nationality). In such cases, the nationality of the organization for which the individual works is coded unless he engages in activities or events that are expressly and obviously not being carried out as part of the program of his employer. Employees of an international organization will normally be presumed to be acting in its behalf unless it is explicitly known that such is not the case.

TABLE 1

INTERNATIONAL ACTOR/TARGET CODE LIST

(Alphabetical)

CODE	ENTITY	ABBR.	CODE	ENTITY	ABBR.
Independent Countries					
700	Afghanistan	AFG	765	Bangladesh	BGD
339	Albania	ALB	053	Barbados	BAR
615	Algeria	ALG	211	Belgium	BEL
232	Andorra	AND	266	Berlin/East	EBE
160	Argentina	ARG	267	Berlin/West	WBE
900	Australia	AUL	760	Bhutan	BHU
305	Austria	AUS	145	Bolivia	BOL
035	Bahamas	BAS	571	Botswana	BOT
695	Bahrain	BAH	140	Brazil	BRA

[5] Regions are used when no one specific actor (or target) is applicable.

TABLE 1 (Cont'd.)

CODE	ENTITY	ABBR.
355	Bulgaria	BUL
775	Burma	BUR
516	Burundi	BUI
811	Cambodia	CAM
471	Cameroun	CAO
020	Canada	CAN
482	Central African Republic	CEN
780	Ceylon (now Sri Lanka)	CEY
483	Chad	CHA
155	Chile	CHL
710	China, People's Republic of	CHN
713	China, Republic of	CHT
100	Columbia	COL
484	Congo (Brassaville)	COP
490	Congo (Kinshasa) (now Zaire)	CON
094	Costa Rica	COS
040	Cuba	CUB
352	Cyprus	CYP
315	Czechoslovakia	CZE
434	Dahomey	DAH
390	Denmark	DEN
042	Dominican Rep.	DOM
130	Ecuador	ECU
651	Egypt (UAR)	UAR
092	El Salvador	ELS
440	Equitorial Guinea (includes Fernando Po)	GUE
530	Ethiopia	ETH
375	Finland	FIN
220	France	FRN
980	Fiji	FIJ
481	Gabon	GAB
420	Gambia	GAM
265	Germany/Dem. Rep.	GME
255	Germany/Fed. Rep.	GMW
452	Ghana	GHA
350	Greece	GRC
054	Grenada	GRE
090	Guatemala	GUA
438	Guinea	GUI
445	Guinea-Bissau	PGU
110	Guyana	GUY
041	Haiti	HAI
091	Honduras	HON
310	Hungary	HUN
395	Iceland	ICE
750	India	IND
850	Indonesia	INS
630	Iran	IRN
645	Iraq	IRQ
205	Ireland	IRE
666	Israel	ISR
325	Italy	ITA
437	Ivory Coast	IVO
051	Jamaica	JAM
740	Japan	JAP
663	Jordan	JOR
501	Kenya	KEN

TABLE 1 (Cont'd.)

CODE	ENTITY	ABBR.	CODE	ENTITY	ABBR.
731	Korea/North	KON	770	Pakistan	PAK
732	Korea/South	KOS	095	Panama	PAN
690	Kuwait	KUW	913	Papua, New Guinea	PNG
812	Laos	LAO	150	Paraguay	PAR
660	Lebanon	LEB	135	Peru	PER
570	Lesotho	LES	840	Philippines	PHI
450	Liberia	LIB	290	Poland	POL
620	Libya	LBY	235	Portugal	POR
223	Liechtenstein	LIC	696	Qatar	QAT
212	Luxemburg	LUX	552	Rhodesia	RHO
580	Malagasy	MAG	360	Rumania	RUM
553	Malawi	MAW	517	Rwanda	RWA
820	Malaysia	MAL	331	San Marino	SAN
782	Maldive	MAD	670	Saudi Arabia	SAU
432	Mali	MLI	433	Senegal	SEN
338	Malta	MLT	451	Sierra Leone	SIE
590	Mauritius	MAR	830	Singapore	SIN
435	Mauritania	MAU	520	Somalia	SOM
070	Mexico	MEX	560	South Africa	SAF
221	Monaco	MOC	681	South Yemen	SYE
712	Mongolia	MON	230	Spain	SPN
600	Morocco	MOR	625	Sudan	SUD
698	Muscat and Oman	MOM	572	Swaziland	SWA
921	Nauru	NAU	380	Sweden	SWD
790	Nepal	NEP	225	Switzerland	SWZ
210	Netherlands	NTH	652	Syria	SYR
920	New Zealand	NEW	510	Tanzania	TAZ
093	Nicaragua	NIC	800	Thailand	TAI
436	Niger	NIR	461	Togo	TOG
475	Nigeria	NIG	052	Trinidad-Tobago	TRI
385	Norway	NOR	616	Tunisia	TUN

TABLE 1 (Cont'd.)

CODE	ENTITY	ABBR.	CODE	ENTITY	ABBR.
640	Turkey	TUR	328	Vatican	VAT
500	Uganda	UGA	101	Venezuela	VEN
365	USSR	USR	816	Vietnam/North	VTN
675	United Arab Emirates	UAE	817	Vietnam/South	VTS
200	United Kingdom	UNK	990	Western Samoa	WSM
002	USA	USA	678	Yemen	YEM
439	Upper Volta	UPP	345	Yugoslavia	YUG
165	Uruguay	URU	551	Zambia	ZAM

Colonies or Protectorates

555	Angola (Port.)	ANG	557	Mozambique (Port.)	MOZ
030	Bermuda (Br.)	BER	556	Southwest Africa	SAW
085	British Honduras	BHO	430	Spanish Sahara	SPS
115	French Guiana	FGU	996	All other Colonies/	
720	Hong Kong (Br.)	HOK		Protectorates	
721	Macao (Port.)	MAC			

International Organizations or Multilateral Groups of Nations

198	Alliance for Progress	AFP
699	Arab League	ARL
397	European Economic Community (EEC)	EEC
398	European Free Trade Association (EFTA)	EFT
986	International Monetary Fund (IMF)	IMF
993	International Red Cross (IRC)	IRC
396	North Atlantic Treaty Organization (NATO)	NAT
599	Organization for African Unity (OAU)	OAU
199	Organization of American States (OAS)	OAS

TABLE 1 (Cont'd.)

CODE	ENTITY	ABBR.
992	Southeast Asia Treaty Organization (SEATO)	SEA
399	United Nations (only)	UNO
394	Warsaw Pact	WAR
985	World Bank (IBRD, IDA)	WBK
809	Cambodian Government in Exile (Sihanouk, Khmer Rouge)*[a]	CKR
649	Kurds	KUR
818	Vietcong	VCG
697	Arab commando groups (Palestine Liberation Organization, Al Fatah)	PLO
991	International terrorist groups	TER
995	Multinational Corporations*	MNC
997	All other international organizations	INT
998	Any other multilateral group	MLG
999	Not stated, unidentified target	NSC

Region Codes

025	North America/North Atlantic	NAM
060	Caribbean	CAR
099	Central America	CEA
190	South America	SAM
270	West Europe	WEU
280	East Europe	EEU
340	Turkey, Greece, Iran, Cyprus	CTO
379	Scandinavia	SCA
498	Black Africa	BLA
499	White Africa	WHA
692	North Africa	NOA
693	Persian Gulf	PER

[a] Starred codes in this table did not exist for coding 1971-1973 data

TABLE 1 (Cont'd.)

CODE	ENTITY	ABBR.
694	Arab World	ARA
715	South Asia	SAS
819	Southeast Asia	SES
825	South Pacific	SOP
970	Arctic	ARC
971	Antarctic	ANA
972	Pacific Ocean	PAC
973	Atlantic Ocean	ATL
974	Indian Ocean	INO
975	Mediterranean	MED
976	North Sea	NOS
977	China Sea	CHS
978	Baltic	BAL
979	Other European Waters	OEW

SUBNATIONAL ACTORS

This dimension consists of a three-digit subnational actor code listed in Table 2. First the coder identifies who within a country is performing the event and then selects the code for one of the subnational entities listed in Table 2. This list contains over 200 codes.

TABLE 2

SUBNATIONAL ACTORS

001	NATION
020	UNIDENTIFIED PERSON OR GROUP IN NATIONAL GOVERNMENT EXECUTIVE
100	Unidentified person or group
101	Chief or head of state (if distinct from chief of government)

TABLE 2 (Cont'd.)

110 Chief of government

111 Personally

119 Other chief of government (e.g., spokesmen for, personal aides to, representatives of)

Council of ministers or cabinet

120 Unidentified person or group

121 Prime Minister or chairperson (if distinct from chief of government)

125 Other officers

129 Other council of ministers

FOREIGN MINISTRIES, DEPARTMENTS, OR AGENCIES

150 Unidentified person or group

Foreign affairs or foreign policy ministry

160 Unidentified person or group

161 Secretary or minister of foreign affairs; spokesmen

165 Foreign ambassadors

169 Other foreign affairs

170 Foreign trade ministry (if distinct)

DEFENSE MINISTRY

200 Unidentified person or group

201 Secretary or minister of defense and spokesmen

210 Army, Army staff

230 Navy, Navy staff

250 Air Force, Air Force staff

270 Military intelligence

272 Mixed or undifferentiated forces

279 OTHER FOREIGN MINISTRIES, DEPARTMENTS, AND AGENCIES

281 Foreign intelligence, non-military

285 Border security forces

299 All other foreign ministries

TABLE 2 (Cont'd.)

DOMESTIC MINISTRIES OR DEPARTMENTS

300 Unidentified person or group
302 Agriculture and food
304 Economics, finance, commerce, trade
306 Health, education, welfare
308 Transportation/communications
310 Internal security
312 Justice
313 Natural resources
314 Other domestic ministries
317 National police

GOVERNMENT ENTERPRISES

320 Unidentified person or group
322 Agricultural, fisheries
324 Industrial
326 Trade and science
329 Mixed and other

399 OTHER EXECUTIVE BRANCH

LEGISLATIVE

400 Unidentified person or group
402 Officers of
404 Committees and commissions

Regionally or organizationally representative legislature

420 Unidentified person or group
422 Officers of
424 Committees and commissions

Population representative legislature

440 Unidentified person or group
442 Officers of
444 Committees and commissions

479 Other national legislative organizations

TABLE 2 (Cont'd.)

JUDICIAL

480 Unidentified person or group
482 Supreme Court, highest tribunal
489 Other

499 MIXED AND OTHER NATIONAL GOVERNMENT

REGIONAL GOVERNMENT

500 Unidentified person or group
510 Executive
530 Legislative
578 Judicial
579 Mixed and other regional government

LOCAL GOVERNMENT

580 Unidentified person or group
582 Executive
588 Legislative
594 Judicial
599 Mixed and other local government

ORGANIZATIONS

700 Parties
701 Unidentified person or group
702 Ruling party
703 Leftist/Socialist/Communist
704 Periodic congresses or conventions
705 National or central committees
706 Chairman, spokesman, delegation
601 Left faction*[a]
602 Right faction*
707 Other

[a] Starred codes in this table did not exist for coding 1971-73 data.

TABLE 2 (Cont'd.)

708	Centrist
709	Periodic congresses or conventions
710	National or central committees
711	Chairman, spokesman, delegation
603	Left faction*
604	Right faction*
712	Other
713	Rightist/Fascist
714	Periodic congresses or conventions
715	National or central committees
716	Chairman, spokesman, delegation
605	Left faction*
606	Right faction*
717	Other
718	Opposition party
719	Leftist/Socialist/Communist
720	Periodic congresses or conventions
721	National or central committees
722	Chairman, spokesman, delegation
607	Left faction*
608	Right faction*
723	Other
724	Centrist
725	Periodic congresses or conventions
726	National or central committees
727	Chairman, spokesman, delegation
609	Left faction*
610	Right faction*
728	Other
729	Rightist/Fascist

TABLE 2 (Cont'd.)

730	Periodic congresses or conventions
731	National or central committees
732	Chairman, spokesman, delegation
611	Left faction*
612	Right faction*
733	Other
734	Ruling coalitions
735	Leftist/Socialist/Communist
736	Periodic congresses or conventions
737	National or central committees
738	Chairman, spokesman, delegation
613	Left faction*
614	Right faction*
739	Other
740	Centrist
741	Periodic congresses or conventions
742	National or central committees
743	Chairman, spokesman, delegation
615	Left faction*
616	Right faction*
744	Other
745	Rightist/Fascist
746	Periodic congresses or conventions
747	National or central committees
748	Chairman, spokesman, delegation
617	Left faction*
618	Right faction*
749	Other
750	Opposition coalitions
751	Leftist/Socialist/Communist

TABLE 2 (Cont'd.)

752 Periodic congresses or conventions
753 National or central committees
754 Chairman, spokesman, delegation
619 Left faction*
620 Right faction*
755 Other
756 Centrist
757 Periodic congresses or conventions
758 National or central committees
759 Chairman, spokesman, delegation
621 Left faction*
622 Right faction*
760 Other
761 Righist/Fascist
762 Periodic congresses or conventions
763 National or central committees
764 Chairman, spokesman, delegation
623 Left faction*
624 Right faction*
765 Other
766 Other

768 INSURGENTS AND POLITICAL TERRORISTS

769 OTHER ORGANIZATIONS

ECONOMIC ORGANIZATIONS

Producers of goods and services
770 Unidentified person or group
772 Agricultural, fishing
774 Industrial
Trade and Service

TABLE 2 (Cont'd.)

776	Unidentified person or group
777	Scientific and technical
781	Artistic
785	Educational
	Non-governmental media
790	Unidentified person or group
791	Broadcast
793	Press
798	Other
799	Other
810	Trade or labor unions
820	Trade associations
830	OTHER ECONOMIC ORGANIZATIONS
	RELIGIOUS ORGANIZATIONS
850	Unidentified person or group
852	Christian
853	Catholic
854	Protestant
856	Jewish
858	Hindu
860	Buddhist
862	Moslem
863	Other
870	ETHNIC/TRIBAL ORGANIZATIONS
875	WOMEN'S ORGANIZATIONS
891	STUDENTS' ORGANIZATIONS
892	FOREIGN REFUGEE/RESIDENT ORGANIZATIONS
893	CULTURAL, FRIENDSHIP ASSOCIATIONS, GROUPS

TABLE 2 (Cont'd.)

899 OTHER ORGANIZATIONS

INDIVIDUALS AND GROUPS OF INDIVIDUALS NOT CONSTITUTING A FORMAL ORGANIZATION

POLITICAL

900 Pro-government
901 Leftist/Socialist/Communist
902 Centrist
903 Rightist/Fascist
904 Opposition
905 Leftist/Socialist/Communist
906 Centrist
907 Rightist/Fascist
908 Other

ECONOMIC/OCCUPATIONAL

912 Agricultural, fishing
913 Industrial
914 Workers in general
915 Management
Trade and Service
916 Scientists and engineers
918 Artists, writers, musicians
920 Educational (administrative, teachers)
922 Press
929 Other

RELIGIOUS

930 Christian
931 Catholic
932 Protestant
945 Jewish
937 Hindu
939 Buddhist

TABLE 2 (Cont'd.)

941 Moslem

949 Other

951 ETHNIC/TRIBAL

955 RACIAL

958 WOMEN

971 YOUTH UNDER 20

973 UNDIFFERENTIATED "INTELLIGENCIA"

975 APPARENTLY UNORGANIZED AND SPONTANEOUS

976 PEOPLE AS A WHOLE; PUBLIC IN GENERAL

981 INDIVIDUALS

983 FORMER "HIGH-RANKING" GOVERNMENT OFFICIALS

985 SPECIFIC AREA OR REGION

998 FOUR OR MORE PERSONS/GROUPS

999 OTHER, NOT SPECIFIED TARGET

EVENT CODES

Event codes consist of three parts: the character of the event, the type of event, and the length of the event. The character of the event is a one-digit code that specifies whether the event is international, non-interactive, or domestic (actual or rumored). Coders select the character code, then select the event code under the appropriate character (international, non-interactive, or domestic). (See Table 3.) INTERNATIONAL EVENTS ARE ALWAYS CODED FROM INTERNATIONAL EVENT CODES (011-236); NON-INTERACTIVE EVENTS FROM NON-INTERACTIVE EVENT CODES (401-423); AND DOMESTIC EVENTS FROM DOMESTIC EVENT CODES (601-751).

TABLE 3

EVENT CODES

Code	Character of Event
1	International (Actual Event) An international event is one that occurs across national boundaries, that is, involving two or more nations.
2	Domestic (Actual Event) A domestic event is one that occurs within national boundaries, that is, involving two or more groups or individuals within one nation.
3	Non-Interactive (Actual Event) A non-interactive event is a specific historical event that does not involve two parties, e.g., the death of a political figure.
4	International (Rumored Event)[a] An international event which is mentioned or announced but which has not yet actually occurred.
5	Domestic (Rumored Event)[a] A domestic event which is mentioned or announced but which has not yet actually occurred.
6	Non-Interactive (Rumored Event)[a] A non-interactive event which is mentioned or announced but which has not yet actually occurred.

INTERNATIONAL EVENTS

1. YIELD

011 Surrender; yield to order; submit to arrest

012 Yield position; retreat; evacuate; surrender possessions

013 Admit wrongdoing; retract statement

014 Apologize *[b]

015 Yield to pressure from; demands of

---

[a] This code added for coding 1974 data.

[b] Starred events in this table are event codes added to the WEIS system from DECS.

TABLE 3 (Cont'd.)

2. COMMENT

021 Explicit decline to comment

023 Neutral comment on situation[c]

025 Neutral explanation of policy or future position[d]

026 Positive comment on situation; statement implies a positive position with respect to a situation; implies that the existing situation or policy position is satisfactory[e]

027 Negative comment on situation; statement implies a negative position with respect to a situation; implies that the existing situation or policy position is unsatisfactory[e]

3. CONSULT

031 Meet with at neutral site; send note

032 Visit; go to

033 Receive visit; host

4. APPROVE

041 Praise, hail, applaud; express condolences, ceremonial greetings, thanks

042 Endorse other's policy or position; give verbal support

043 Physically demonstrate in support of*

5. PROMISE

051 Promise own policy support

052 Promise material support

053 Promise other future support action

054 Assure, reassure

055 Promise information to*

---

[c] For coding 1971-73 data, code 023 was "Comment on situation; express hope, concern, fear."

[d] For coding 1971-73 data, code 025 was "Explain policy or future position."

[e] This code did not exist for coding 1971-73 data.

TABLE 3 (Cont'd.)

6. GRANT

061 Express regret

062 Give state invitation

063 Grant asylum

064 Grant privilege, diplomatic recognition, de facto relations; send ambassador to unoccupied post

065 Suspend negative sanctions; truce; cease-fire

066 Release and/or return persons or property

067 Increase number of consulates in*

068 Establish a legation in*

069 Open an embassy in; increase embassy personnel*

7. REWARD

071 Extend economic aid (gift and/or loan)

072 Extend military assistance; joint military exercise

073 Give other assistance

075 Give friendly warning, implicit warning. Statement that another party should or ought to do something. Expresses hope that another party will do something, or fear or concern of consequences if something is not done. Implies a preferred policy position, or that another party should change its behavior or position. [f]

8. AGREE

081 Make substantive agreement

082 Agree to future action or procedure; agree to meet, to negotiate; accept state invitation

083 For an agreement to go into effect*

084 For an agreement to expire

9. REQUEST

091 Ask for information

---

[f] This code did not exist for 1971-73 data. For coding 1971-73 data code 074 was "Give non-threatening (friendly) notice of impending or possible harm to*."

TABLE 3 (Cont'd.)

092 Ask for policy assistance; seek help

093 Ask for material assistance

094 Request action; call for; ask for asylum

095 Entreat; plead for; emotional appeal to

096 Request granting of rights and/or privileges

10. PROPOSE

101 Offer proposal

102 Urge or suggest policy or action

11. REJECT

111 Turn down proposal; reject protest, demand, threat, etc.

112 Refuse; oppose; refuse to allow; exclude; fail to reach agreement

113 Refuse to give information to*

114 Refuse to give certain rights and privileges to*

115 Refuse to give, or refuse to accept, tangible or material support*

12. ACCUSE

121 Charge; criticize; blame; disapprove

13. PROTEST

131 Make complaint (not formal)

132 Make formal complaint or protest

14. DENY

141 Deny an accusation, attributed policy, action, role, or position

15. DEMAND

150 Issue order or command; insist; demand compliance; etc

16. WARN

162 Give hostile warning; explicit warning of necessary policy change[g]

---

[g] This code did not exist for 1971-73 data. For coding 1971-73 data, code 160 was "Give warning".

TABLE 3 (Cont'd.)

17. THREATEN

171 Threaten without specific negative sanctions

172 Threaten with specific non-military negative sanctions

173 Threaten with force specified

174 Threaten with negative sanctions and time limit specified; ultimatum

18. DEMONSTRATE

181 Non-military demonstration; walk out on; boycott

182 Armed force mobilization, exercise, and/or display; blockade

183 Attempt to cause physical destruction*

19. REDUCE

191 Cancel or postpone planned event; withdraw offer

192 Reduce routine international activity; recall officials; etc.

193 Reduce or suspend aid or assistance; permanently withhold

194 Halt negotiations

195 Break diplomatic relations; declare independence from

196 Increase number or severity of legal barriers on*

197 Decrease the number of consulates in*

199 Expressly terminate (or violate) an agreement with*

20. EXPEL

201 Order personnel out of country; deport

202 Expel organization or group

21. SEIZE

211 Seize position or possessions

212 Detain or arrest person(s)

213 Intrude upon the property or territory of*

22. FORCE

221 Non-military destructive act

222 Military injury-destruction; bomb

223 Military engagement

23. ORGANIZATIONAL AFFAIRS*

231 Establish a new organization

232 Abolish an old organization

233 Reorganize or alter the composition of an existing organization

234 Join

235 Withdraw from membership in

236 Revoke or suspend the membership of; expel

NON-INTERACTIVE EVENTS*

40. PERSONAL HEALTH

401 Personal accident (of important person) which affects ability to govern or act

402 Become ill in such a way as to affect ability to govern or act

403 Recover

404 Injure in an assassination attempt

405 Important political person's death from natural causes

41. PREPAREDNESS

411 Increase the recognized "readiness" of an organization; to go on alert

412 Decrease the recognized "readiness" of an organization; to discontinue an alert

42. CURRENCY

421 Officially increase the value of one's own currency in terms of other currencies

422 Officially decrease the value of one's own currency in terms of other currencies

423 Other

DOMESTIC EVENTS

Government Structure, Personnel

60. REGULAR STRUCTURAL CHANGE

601 Regular power transfer

602 Regular executive transfer

603 Renewal of executive tenure

TABLE 3 (Cont'd.)

61. PERSONNEL CHANGE

611 Appointment of politically significant person

612 Resignation of politically significant person

613 Dismissal of politically significant person

62. IRREGULAR STRUCTURAL CHANGE

621 Irregular power transfer or purge

622 Dissolution of legislature

623 Fall of cabinet; removal from office

624 Coup d'etat

625 Revolution

Political Participation

63. PHYSICAL PROTEST, NO VIOLENCE

631 Political or general strike

632 Economic or other strike

633 Boycott

634 Anti-demonstration

635. Attempted coup

636. Seizure of government property

637 Seizure of government personnel

638 Symbolic protest; demonstration

639 Defection

64. PHYSICAL PROTEST, VIOLENCE

641 Assassination

642 Attempted assassination

643 Symbolic demonstration or suicide

644 Riot

645 Mutiny

646 Sabotage

647 Terrorism or armed attacks

648 Guerrilla warfare

649 Civil war

TABLE 3 (Cont'd.)

65. PHYSICAL EXPRESSIONS OF SUPPORT

651 Pro-demonstration

652 Public demonstration of support

66. ELECTIONS

661 Hold elections

662 Schedule elections

663 Cancel or postpone elections

67. EXPRESS VERBAL SUPPORT

671 Approve; endorse; praise; thanks

672 Promise

673 Agree to future action; agree to meet

674 Formal agreement

676 Give friendly warning, implicit warning. Statement that another party should or ought to do something. Expresses hope that another party will do something, or fear or concern of consequences if something is not done. Implies a preferred policy position, or that another party should change its behavior or position[h]

68. GRANT SUPPORT

681 Grant

682 Reward

683 Yield; apologize

69. GENERALLY SUPPORTIVE ACTIVITY

690 Implement new policy[i]

691 Request

692 Propose; urge

693 Explain neutral policy[j]

---

[h] This code did not exist for coding 1971-73 data. For coding 1971-73 data, code 675 was "Give friendly warning."

[i] This code did not exist for coding 1971-73 data.

[j] For coding 1971-73 data, code 693 was "Explain policy."

TABLE 3 (Cont'd.)

694 Meet with

695 Refuse comment

696 Make neutral general comment[k]

697 Positive comment on situation; statement implies a positive position with respect to a situation; implies that the existing situation or policy position is satisfactory[l]

698 Negative comment on situation; statement implies a negative position with respect to a situation; implies that the existing situation or policy position is unsatisfactory[l]

699 Suggest new future policy[l]

70. EXPRESS VERBAL HOSTILITY

701 Reject; refuse; oppose

702 Accuse; charge; denounce

703 Protest; complain

704 Deny

705 Demand; insist

707 Threaten

708 Give hostile warning; explicit warning[m]

71. REDUCE RELATIONSHIP

711 Cancel; postpone planned event

712 Reduce routine relationship, activity

713 Reduce or suspend aid or assistance

714 Halt negotiations, talks

715 Terminate or violate an agreement

Relationship Between Ruler and Ruled

72. GOVERNMENTAL SANCTIONS, NON-VIOLENT

721 Sanctions against organization or group (non-governmental)

---

[k] For coding 1971-73 data, code 696 was "Make general comment; express hope, concern, fear."

[l] This code did not exist for coding 1971-73 data.

[m] This code did not exist for coding 1971-73 data. For coding 1971-73 data, code 706 was "Warn."

TABLE 3 (Cont'd.)

722 Ban demonstration

723 Outlaw political group

724 Order to halt strike, boycott, protest

725 Declare martial law or state of emergency

726 Political arrest

727 Curtail press freedom

728 Exile

73. GOVERNMENTAL SANCTIONS, VIOLENT

731 Execute

732 Attack crowd; produce injuries or death

733 Produce injury or death to individual not in crowd

74. GOVERNMENTAL RELAXATION OF RESTRICTIONS

741 Lift martial law; state of emergency

742 Relaxation of sanctions or other restrictions

743 Release persons or property

75. OTHER

751 Change in laws or constitution

The event length classification code shown in Table 4 is used to determine the length of time over which an event occurs. Most events occur and are completed in one day--therefore they are discrete (coded 1). Some events, such as negotiations, continue over time (coded 3). Others, such as an increase (coded 5) or decrease (coded 6) of military activity, are distinct changes in activity levels already underway.

TABLE 4

EVENT LENGTH CODE

CODE	MEANING
1	Brief, discrete activity lasting less than one calendar day
2	Distinct beginning of an activity that lasts more than a calendar day
3	Continuation of an activity already underway

TABLE 4 (Cont'd.)

CODE	MEANING
4	Distinct ending of an activity already underway
5	Distinct increase in an ongoing activity
6	Distinct decrease in an ongoing activity
7	Activity to begin in future[a]
0	Unknown; not specified

First (Direct) International Target

The first international target is the country, group, region, or international organization to whom the event is directed. If there is no direct target, the target code is "999" (non-directional). If there are more than three direct targets, the target code is "998" (multilateral group). For 1971-73 data, if the event was domestic, it was coded "0" in the furthest right-hand column of the category (column 21). For 1974 data, if the event was domestic, the country code was inserted here.

First (Direct) Subnational Target

The first subnational target is the person or group to whom the event is directed.

Second (Indirect) International Target

The second international target is any second country, group, region, or international organization about which the event occurs. For example, if Afghanistan is complaining to the Soviet Union about Albania's rearmament policy, Albania would be the second international target. There is not always a second international target. When there is none, "0" is placed in the furthest right-hand column (column 28) of the second international target field.

[a] This code did not exist for 1971-73 data.

Second (Indirect) Subnational Target

The second subnational target is any second person or group about whom the event occurs. Again, there is not always a second subnational target. When there is none, "0" is placed in the furthest right-hand column (column 32) of the second subnational target field.

SUBJECT CODES

Subject codes are general descriptive categories that may be applied to each event. The list of subject codes includes five major areas: economic, social, political, science and technology, and military. Under each of these major areas there is a list of categories that might be applied to international or domestic events. A maximum of three applicable subject codes may be applied to each event. If there are more than three applicable subject codes, only the two major subject codes are coded, followed by "999." ALWAYS CODE TO THE FURTHEST RIGHT-HAND COLUMNS (COLUMNS 39-41) UNDER "SUBJECT CODE." Table 5 lists the subject codes.

TABLE 5

GENERIC SUBJECT RETRIEVAL CODES

CODE	SUBJECT
ECONOMIC	
	International
100	Trade
110	Trade agreements
111	Amounts and directions; trends; composition
112	Quotas
113	Tariffs

TABLE 5 (Cont'd.)

119	Other
120	Finance
121	Balance of payments
122	Exchange rates; policies; mechanisms; and institutions for adjustment
129	Other finance
130	Investment
131	Business
132	Government (aid)
133	Economic aid
134	Technical aid (teams, technicians)
139	Other
140	Energy
141	Business
142	Government
143	Other
145	International labor relations
146	Transportation and communication
148	Development of resources
149	Other
	Internal
150	Growth and development
151	GNP; national income; levels and composition
152	Investment
153	Production
154	Industrialization; growth of technology
155	Energy
156	Development of resources
160	Manpower
161	Craft and trade unions
169	Other
170	Problems
171	Inflation; price levels; wage rates

TABLE 5 (Cont'd.)

172 Unemployment and underemployment

173 Regional problems

179 Other

180 Government policies

181 Fiscal; budget

182 Monetary; banking, federal reserve

190 Other (none of the above)

SOCIAL

200 International

211 Migration

212 Personal travel; unofficial visits

213 Cultural relations

214 Ecology; pollution

215 Narcotics; crime

240 Other

250 Internal

251 Religion

252 Narcotics; crime

253 Education

254 Health

255 Personal travel

256 Social unrest

257 Ecology; pollution

258 Other; social welfare; quality of life

POLITICAL

300 International

311 Laws; treaties; negotiations

312 General relations of states

313 Diplomatic/consular affairs

314 International organizations, memberships and activities

TABLE 5 (Cont'd.)

315 Formal alliances, political/military/economic

316 General reduction of violence (war, terrorism); cease-fire

318 Border disputes

319 Territorial waters

320 Airspace

321 Military conflict

322 Territory; territorial affairs

323 International terrorism

340 Other

350 Internal

351 Civil rights; voting; democratic processes

352 Political parties; movements

353 Judicial processes, administration of justice

355 Internal security (police action, activity)

356 Insurgent or guerrilla activity

357 Government structure (change of)

358 Government personnel (appointments; change of)

359 Government policy

SCIENCE AND TECHNOLOGY

400 International

411 Medical transfer

412 Agriculture; fisheries

413 Natural resources

414 International communications

415 Military technology

416 Industrial technology

417 Nuclear development

418 Space research

419 General technological transfer

440 Other

449 Internal

TABLE 5 (Cont'd.)

450 Military related
451 Missile research
452 Nuclear weapons research
453 Chemical and biological weapons research
454 New and unconventional weapons research
479 Other
480 Non-military related
481 Space research
482 Nuclear reactors, nuclear materials
483 Medical research
484 Agriculture; fisheries
485 Natural resources
486 Communications
490 (Pure) Scientific research

MILITARY

500 Strategic Nuclear Forces

501 Force levels
502 Procurement of weapons; expenditures
505 Deployment; transit; base rights; logistics
510 Training and readiness
549 Other

550 General Purpose Forces

551 Force levels
552 Procurement of new weapons; expenditures
553 Mobilizations; deployments
555 Transit; locations; base rights; etc.
560 Training and readiness
570 International military aid (including training, equipment, troops)
571 Military sales transfers
599 Other

TABLE 5 (Cont'd.)

OTHER

900 Other; general

MORE THAN THREE OF THE ABOVE

999 More than three of the above subjects involved

ISSUE CODES

TABLE 6

ISSUE-AREAS[a]

1. Territorial Area
2. Human Resources Area
3. Nonhuman Resources Area
4. Status Area
9. None of above or unclear

TABLE 7[b]

ISSUES REGARDING JAPAN

Japanese-U.S. Relations

1001 JAP should not continue to permit USA bases on her soil.

1003 Okinawa should revert to JAP.

1004 The USA should not have nuclear devices on its bases in Okinawa.

1005 The USA should not have poisonous gases on its bases in Okinawa.

1006 USA bases in JAP should not be allowed to receive ships which are carrying nuclear weapons.

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[a] Suggested by Rosenau (1966).

[b] Issues are expressed in terms of non-status quo propositions. New issues will be added to the current list as they arise.

TABLE 7 (Cont'd.)

Japanese-U.S. Relations (cont'd.)

1007 The USA should withdraw completely from the Ryukyus.

2001 JAP and the USA should not retain a security treaty for mutual defense.

2002 The USA should withdraw from Vietnam/Indochina.

3001 JAP should not provide support for USA troops during the Vietnam war.

3009 The JAP should finance part of the USA military which defends JAP.

3014 The USA should place no limits on the export of technology to JAP.

3016 JAP investment in the USA should be reduced.

3020 The USA should grant JAP more trade concessions.

Japanese-Soviet Relations

1002 The USR should return the Northern Territories to JAP.

2005 USR and JAP should form a collective security system in Asia.

3004 There should be increased trade between JAP and the USR.

3005 The USR should permit JAP fishermen in the waters of the Northern Island.

3006 JAP should be involved in the development of the USR oil and gas.

3007 JAP should be involved in the development of USR timberlands.

3029 JAP should cooperate with USR in Siberian development

4007 The USR should conclude a peace treaty with JAP.

9003 JAP and the USR should expand the air routes between the two countries.

Japanese-Middle Eastern Relations

2003 JAP should take an active role in seeking a Mideast settlement.

3008 JAP should not invest (financially and technologically) in the Middle East.

3018 JAP should support the Arabs in the Middle East.

3025 JAP should extend economic/technical aid to Arab nations.

4009 JAP should break diplomatic relations with ISR.

TABLE 7 (Cont'd.)

Japanese-Chinese Relations

2006 CHN, USA, and JAP should form a collective security system in Asia.

2007 CHN and JAP should form a collective security system in Asia

3002 JAP should increase trade with CHN.

3026 JAP should extend economic/technical aid to CHN.

4003 JAP should recognize CHN and establish diplomatic relations.

4004 CHN should be represented in the U.N.

4005 CHT should be excluded from the U.N.

4006 JAP should cease diplomatic relations with CHT.

9007 JAP should conclude Civil Air Agreement with CHN.

9008 JAP should conclude private air agreement with CHT.

Japanese-Asian/Southeast Asian Relations

1008 JAP should support KON-KOS reunification.

2008 JAP should intervene to secure civil rights for KOS citizens and foreign nationals residing in KOS.

3003 JAP should not invest in INS oil resources.

3015 JAP should increase its investment in VTN.

3017 JAP investment in AUL should be reduced.

3019 JAP and KON should increase trade.

3021 JAP should increase investment in Southeast Asia.

3022 JAP should import more from Southeast Asia to adjust JAP balance of payments.

3023 JAP should import more from Asia to adjust JAP balance of payments.

3030 JAP should decrease economic involvement in KOS.

3031 JAP should not ratify JAP-KOS Continental Shelf Agreement.

4001 JAP should establish diplomatic relations with VTN.

4002 JAP should establish diplomatic relations with KON.

4008 JAP should recognize Prince Sihanouk's government-in-exile as rightful government in CAM, and break relations with Lon Nol regime.

9001 An international conference should be held to discuss the Vietnam war.

9002 CAM should be a neutral nation.

TABLE 7 (Cont'd.)

Japan-Economic Issues

3010 There should be a JAP textile export quota.

3011 JAP should reduce import quota.

3012 JAP should revalue upward its currency.

3013 JAP should reduce its capital investment overseas.

3024 JAP should increase trade and/or economic investment with EEC.

3027 JAP should lower fishing quotas in the Northwest Pacific.

3028 JAP should participate in the development of the North Sea oil resources.

3032 JAP should make bilateral agreements with oil-producing nations.

3033 JAP should increase economic involvement with Eastern European countries.

3034 JAP should increase economic involvement with Latin American countries.

9004 JAP should adhere to international trade agreements (e.g., Kennedy round).

Japan-Nuclear Issues

2004 JAP should ratify the Non-Proliferation Treaty.

9006 JAP should develop a nuclear capability.

9009 JAP should not permit nuclear-powered vessels in her ports.

Japan-Self Defense

9005 JAP should rebuild its military power beyond the "self-defense" state.

Other Issues

1009 Senkakyu Island should be returned to JAP.

THE ISSUE POSITION CODE

The current definition of "issue" is built around the idea of a condition which, in the view of an actor, should or should not exist. Some acts express a preference for or against the condition at issue. The issue position code records such a position as either supporting (code = 1) or opposing (code = 2) the non-status quo proposition. As a convention, positions on the non-status quo condition will be recorded. For example,

on the Okinawa issue, the position is recorded in terms of opposition to or support for a quota.

Each issue in Table 7 is stated in terms of a non-status quo proposition in order to facilitate issue-position coding. THE CODER GIVES AN ISSUE POSITION CODE OF "1" IF THE EVENT SUPPORTS THE PROPOSITION; A CODE OF "2" IF THE EVENT OPPOSES THE PROPOSITION; AND A CODE OF "0" IF THERE IS NO EVIDENCE OF OPPOSITION OR SUPPORT. IF THERE IS NO ISSUE, "00" IS CODED IN COLUMNS 49-50. If a position is coded 1 or 2, the event must explicitly express a position; that is, contain a statement of or express a belief, request, or demand that the condition should or should not exist.

SOURCE CODE

This is a one-digit code for the data source. This code for FBIS is 2.

IV. TEXTUAL ABSTRACT

For each coded event there is a complete one sentence description of the event that gives the unique aspects of the event that analytic coding obscures.[6] It is not a verbatim translation of the analytic code; rather, it specifically provides more information about the event reported in the coding source. A single descriptive sentence, however, may follow several coded events; but more than one descriptive sentence should never follow analytically coded (numeric) events.

A number of conventions have been developed by the World Event/Interaction Survey (WEIS) for constructing the description. First, all nations named in the article should be mentioned in the event description. Whenever a nation is mentioned, its 3-letter alphabetic code is used. This enables the computer programs to scan the text for events not obtainable by analytic retrievals. For this reason, it is necessary to keep the descriptive codes for a conference, agreement, or negotiations the same. For example, the word-set "European Security Conference" must be used for any event that involves this conference in any way because there is no analytic code that signifies the European Security Conference. If it is typed the same way every time it is mentioned in an event, the TEXSCAN program can pick out the events in which it is important.

The first words of a description should identify the actor (3-letter alpha codes only), the subactor, and the last name of the subactor if stated in the article.

Example:	United States	President	Nixon
becomes:	USA	PRS	Nixon

[6] This section is abstracted from Truesdell (1973).

Example: United Nations General Assembly
becomes: UNO GA

The event should not be stated as its DECS code name but according to the wording of the article. Example: 002 121 365 should not mean: USA SST Rogers criticizes USR. It should be stated: USA SST Rogers says USR system of government cares not at all for its citizens.

Targets use the same convention as actors. The 3-letter alpha code of the target nation is used; if the event is directed at a specific subtarget, the target's office and name are mentioned.

> USA VP Agnew arrives for 2-day visit in USR and is greeted by USR PRS Podgorny and FM Gromyko

The description can include any form of punctuation. Periods at the end of the sentence are not necessary and have not been used previously. If a proposal or agreement is the event, the specific points should be mentioned. Likewise, the specific points reflected by one nation in another nation's proposal should be included. The names and locations of battles, seized positions, surrenders, meetings, and demonstrations are also included. For example, the towns and their distances from major cities are usually given in IDO battle reports. Therefore this information should be included. Also, in the Vietnam bombings and engagements, one double-coded engagement is coded for the nation in which numerous engagements actually took place. In the description, the actual number and location of battles are mentioned. Thus, the description would read: VTS and VTN forces fight 250 battles centered at My Lai, Danang, Quangtri City, and Pleiku, VTS.

The important consideration in constructing descriptions is to make each a single complete sentence, no longer than three lines, and totally comprehensible to a reader 5 years hence. Thus, each description must contain enough information for the event to be understood.

Abbreviations are used wherever possible (e.g., RELNS for Relations). Also, numerals are used instead of words (e.g., 8 for eight). The sentence must not exceed 3 lines of 51 columns due to computer storage limitations.

TABLE 8

DESCRIPTIVE ACRONYMS

PRS	President
PRM	Premier
PM	Prime Minister
FM	Foreign Minister
SST	Secretary of State
DOS	Department of State
SOD	Secretary of Defense
DOD	Department of Defense
VP	Vice President
JMC	Joint Military Commission in South Vietnam (VTS, VTN, USA, VCG)
ICS	International Commission for Supervision of the Cease-Fire in Vietnam
ICC	International Control Commission
OPEC	Organization of Petroleum Exporting Countries
ICJ	International Court of Justice
CHRMN	Chairman
SG	Secretary General
AMB	Ambassador
ADV	Advisor
PRS ADV	Presidential Advisor
CP SEC	Communist Party officials
GEN	General
ASST	Assistant
DEP	Deputy
GOVT	Government
REP	Representative
ADM	Administration
SPKM	Spokesman

TABLE 8 (Cont'd.)

GA	General Assembly
SC	Security Council
CMW	Commonwealth
LDP	Japan Liberal Democratic Party
JCP	Japan Communist Party
DEM-SOC	Japan Democratic Socialist Party
JSP	Japan Socialist Party
HSE of C	Japan House of Councillors
MBFR	Mutual Balanced Force Reduction
ESC	European Security Conference

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STATEMENTS OF IMPORTANT ISSUES FOR JAPAN

The following list of Japanese issues, goals, and problems that affect the nature and direction of its international and internal behavior has been culled from the literature on Japan which was published between 1970 and the present. It represents the major issue areas demanding the attention of Japanese experts and policy-makers.

A. Issues in U.S.-Japanese Relations:

1. Modification of political, military, and economic relations.
2. U.S. demands for voluntary limitations on textile exports to the United States.
3. Global cooperation between Japan and the United States.
4. Potential conflict with the United States over markets and raw materials.
5. Status of U.S. bases in Japan.
6. Status of U.S.-Japanese Security Treaty.

B. Issues in Soviet-Japanese Relations:

1. Peace treaty (linked to and confounded by territorial issue).
2. Territorial dispute over four northern islands (Shikotan, Habomai group, Etorofu and Kunashiri) (source of fish for Japan, and military airfields and harbor).
3. Siberian development (raw materials, resources).
4. Japan's security vis-a-vis the Soviets and Chinese.
5. Fishing negotiations.

C. Issues in Sino-Japanese Relations:

1. Japanese concessions over relations with South Korea and Taiwan (in terms of defense and investment).
2. Japan's security problems (means of defense from Chinese nuclear capability) -- maintain balance (neutrality?).
3. Chinese work force and raw materials.
4. Potential conflict over offshore oil.
5. Development of Manchuria.
6. Follow U.S. lead in detente with PRC (normalization of relations).
7. Maintenance of close ties with Taiwan.

D. Issues Involving Diplomatic Relations:

1. Strategic planning for increasingly multi-polar international system.
2. Participation in reconstruction of Indochina (political detente, investment).
3. Closer relations between Japan and Common Market countries.
4. Better relations with developing nations (Latin America, Southeast Asia).
5. Strengthen U.N. activities.
6. Promotion of regional cooperation.

E. Issues Involving Armament:

1. Future of own military capabilities.
2. Future of U.S.-Japanese Security Treaty.
3. Nuclear Armament.
4. Maintenance of nuclear-free mainland status.

F. Issues Involving Energy and Resource Dependence:

1. Implications of energy crisis.
2. Appease Arabs.
3. Resource dependency for food, raw materials, oil.
4. Cooperate with other areas in resource development to increase availability.
5. Export technology to developing areas to produce semi-processed materials abroad.
6. Reduce heavy industrial energy requirements at home.
7. Restructure home industry to use less energy.

8. Resource saving at home: (a) mass transit, (b) less imported food consumption.

9. Slow own rate of growth.

10. Foreign investment by Japan.

G. Issues Involving the Domestic Economy:

1. Domestic inflation.

2. Paucity of social capital and social services.

3. Environmental decay.

4. Revaluation.

5. Establish export tax.

6. Open Japanese markets to foreign investment.

7. Restructure Japanese economy (disperse factories, domestic investment, government inducements).

8. Domestic growth.

9. Develop mass transit.

H. Issues Involving the International Economy:

1. Liberalize trade and capital; encourage spending and investment abroad; lower tariffs; remove non-tariff barriers.

2. Responsibility in the interdependent international economic community.

3. Aid to developing nations (capital, technology, finished products).

4. Seek multilateral balance of trade.

5. Promote free trade policy.

6. Reduce excessive trade surplus.

C.A.C.I.

SANTA BARBARA OFFICES

PULSE USER'S MANUAL

Version B1.0

January, 1975

SANTA BARBARA OFFICES 800 GARDEN STREET, SUITE D SANTA BARBARA, CALIFORNIA 93101 TELEPHONE (805) 963-0076

ABOUT CACI

CACI, Inc. is a management consulting firm that provides solutions to managerial, operational, and educational problems through quantitative analysis and computer techniques. CACI's International Affairs Center, located in Santa Barbara, California, specializes in the development management and analysis of international affairs data bases and indicators.

ABOUT PULSE

CACI's PULSE System, implemented on the General Electric (G.E.) MARK III Timesharing Network, permits flexible retrieval and display of selected international event data collections, as well as computation and display of a variety of aggregate status and behavioral indicators based on the data. Individuals and organizations desiring to use PULSE need acquire only a communications terminal and an appropriate G.E. account number in order to proceed. Charges for use of the PULSE system are based on the amount of use, and there is no CACI minimum use requirement.

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WASHINGTON, D.C. OFFICES

PULSE USER'S MANUAL

Version B1.0

January, 1975

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SECTION IV. APPENDICES A.1

TABLES AND FIGURES

SECTION I. OVERVIEW

Quantitative Indicators and Management. Quantitative Indicators have increasingly become the informational shorthand of management - a means for coping with the increasing quantity and variety of information confronting executives in government and industry. Useful indicators measure conditions which are relevant to management interests and, in doing so, aid in planning and decision making. Their value lies in the conciseness of their numerical form, the timeliness with which they can be provided, the simplicity with which they record, illustrate, and "remember" history, and their potential for signalling change.

In most large enterprises, both governmental and private, managements avail themselves of economic indicators which reflect domestic and international conditions. The improvement or deterioration of economic conditions over time is monitored through these indicators. As conditions signal change, management is alerted to appropriate decision priorities. The economic risks and opportunities of ongoing and prospective ventures may then be assessed in a timely fashion. In addition, through indicators, managements are afforded succinct and authoritative language for communication. Quantitative economic indicators, then, represent a change in the form of information available to and being used by managements, a form which is helping to restore the balance between essential information flows and available management time.

Now a new indicator technology is available. It encompasses international and domestic political affairs, and opens new informational vistas to those governmental and private managements whose interests are sensitive to political as well as economic considerations.

Nature of the Technology. While similar to economic indicators in concept, international affairs indicators differ in two basic ways:

1. Their measurement is in terms of units of behavior between and within countries, such as threats, protests, agreements, and meetings, rather than in more conventional units of measure, such as money, units of output or people, and
2. The data upon which the indicators are currently based is collected privately, rather than being produced by government agencies.

International affairs indicators are derived from the same narrative accounts of international events as are customarily used to analyze international affairs. Chronologies of these events are systematically coded into continuous streams of quantitative data. The data, in turn, are employed in formulating summary quantitative measures or indicators of selected international political phenomena.

PULSE is a flexible, user-oriented software package for management and dissemination of the data and indicators. It is now possible to access this information from virtually any remote location, to retrieve selected data, to produce up-to-date indicator values, to record the information in either tabular or plotted form, and even to recapture the original narrative accounts as English language abstracts. A vital characteristic of this technology is the ability of users to move freely between the numerical and English language forms of international affairs information. In this way the convenience and manipulability of numerical data are made available while preserving the bulkier, but more informative, narrative accounts.

Specifically, the PULSE event-interaction data base[1] consists of international event data coded from the daily New York Times, with worldwide coverage starting in January, 1966, and continuing currently.

PULSE international affairs indicators, the product of more than three years of team research, attempt to capture both quantitative and qualitative aspects of interactions between nations as represented in the data base. Quantitative concepts include Involvement, Participation, and Concentration, which are designed to measure both the magnitude and distribution of international actions. These indicators are constructed directly from smoothed and actual event frequencies for each nation and nation-pair, at progressively more aggregate levels. In contrast to these measures of magnitude and distribution, indicators of Relations and Policy Style portray selected qualitative dimensions of international behavior by algebraic comparisons of certain groups of event categories with others. All PULSE indicators are computed as time series which are displayed at the user's communication terminal as tables or plots. PULSE permits the user to select the data, indicator, and display options best suited to his particular application. User options are explained in detail in Section III.

---

[1] The term event interaction was coined by Professor Charles McClelland, director of the World Event/Interaction Survey (WEIS) Project at the University of Southern California. Event interactions between countries are defined as actions and responses that are both official (i.e., initiated and received by governmental representatives) and non-routine (i.e., of sufficient importance that they attract attention and are reported). Event interaction data consist of chronologies of such actions and responses in which the constituents of an event may include an actor, event, target, and arena. Since 1971, CACI, Inc. has continued the WEIS collection, and has engaged in research in the coding of event data and the construction and validation of event-based indicators.

SECTION II. PULSE CONCEPTS

Event Data Coding and Data Management

The following concepts are presented as a means of orienting the user to the international affairs technology undergirding the PULSE system.

Coding refers to the process by which event data collections are generated. Narrative accounts of non-routine behavior between governments form the basis of each particular collection. Routine interactions, such as normal trade and diplomatic discourse, tourist exchanges, and mail flows which are not reported in the daily press are excluded.

The coding process, based on a system developed at the University of Southern California, converts reporters' accounts of behavior appearing in print into four basic numerical codes. These codes identify the date, the country initiating an action (called "actor"), the country toward which the action is directed (called "target"), the category of action ("event"), and the region of the world or "theatre" in which the action occurred ("arena"). Recently, an issue code has been added, further identifying the domain in which the action occurred as being "political", "economic", or "military" in character. At the time each narrative account is coded, an English-language abstract of the event is prepared and included in the collection with the numerical entry.[2]

[2] Appendix A provides a list of countries encompassed by current coding procedures. The various categories of interaction are summarized in Appendix B. Arena codes appear in Appendix C.

The primary source of international affairs narratives to which the coding system has been applied is the daily New York Times. Figure 1 illustrates the process of coding a typical New York Times news item to produce event data records. Coding of the New York Times in this manner has yielded over 70,000 records of international actions since January, 1966.[3] Not all countries and regions of the world are uniformly represented, however. For a variety of reasons including basic differences in levels of activity, coding conventions, reporting practices, and other factors, not all pairs of countries will have sufficient data to be of interest. Figure 2 illustrates overall distribution of coverage as of March, 1972.

Data Management refers to the computer programs, or software, developed for error checking, storage, and retrieval of the raw data produced through coding. The raw data collection is checked, reformated in a manner which maximizes retrieval speed and efficiency, and placed on two separate magnetic tapes:

(1) a chronology of numerical data, called the analytic file; and

(2) a chronology of English language abstracts, called the descriptive file.

PULSE enables the user to retrieve any specified portion of one or both of these files with great ease. For example, one might retrieve and display in tabular form the monthly frequency of selected actions directed towards the U.S. by China, opting to retrieve the corresponding English language abstracts as well. This capability is discussed in detail as Option 5 in Section III below.

---

[3] It should be noted that the coding system and other components of international affairs technology, including the PULSE system, are source independent. That is, the technology is general and may be applied to other narrative sources as the need arises.

Figure 1. Examples of WEIS Coding

NEW YORK, SATURDAY, OCTOBER 9, 1971.

SOVIET IS OUSTING FOUR BRITISH AIDES IN REPRISAL MOVE

Cancels Douglas-Home Trip and Revokes the Visas of Three Businessmen

By HEDRICK SMITH
Special to The New York Times

MOSCOW, Oct. 8—The Soviet Union tonight ordered the ouster of four British diplomats and one businessman and revoked the entry visas of three other businessmen in retaliation for Britain's mass expulsion two weeks ago of 105 Soviet representatives on espionage.

The Soviet Foreign Ministry summoned the British Ambassador, Sir John Killick, to an urgent meeting to inform him that the Britons ordered ousted would have to leave the country within two weeks and to advise him of the following additional countermeasures.

¶Cancellation of several high-level visits, including the trip here early next year by Sir Alec Douglas-Home, the British Foreign Secretary, in view of the "severe aggravation" of Soviet-British relations "caused by the actions of the British Government."

¶Suspension of the operation of several joint Soviet-British commissions in economic and cultural fields.

¶The permanent barring [illegible]

Actor/Target Country Codes

USSR = 365

United Kingdom = 200

Event Codes

201 = Order personnel out of country; deport

031 = Meet with

191 = Cancel or postpone planned event

192 = Reduce routine international activity

year · month · day · actor · event · target

7	1	1	0	0	8	3	6	5	2	0	1	2	0	0
7	1	1	0	0	8	3	6	5	0	3	1	2	0	0
7	1	1	0	0	8	2	0	0	0	3	1	3	6	5
7	1	1	0	0	8	3	6	5	1	9	1	2	0	0
7	1	1	0	0	8	3	6	5	1	9	2	2	0	0

Figure 2. WORLD SUMMARY-NEW YORK TIMES INTERACTION MATRIX

	USA	USR	CPR	UNK	FRN	GMW	NAT	WAR	Europe	Latin America	ISR	Arabs	Sub-Sah. Africa	NIG/BIA	IND/PAK	KOS/KON	Indochina	JAP	Asia	UNO
USA		708	107	130	115	124	280	102	119	274	203	339	85	51	212	161	1969	135	173	281
USR	872		252	114	89	156	91	261	63	39	121	198		12	86	10	101[j]	54		116
CPR	332	279		82	15		25	20[c]	18[d]				13[i]		117		103	52	64	30
UNK	137	124	47		43	53	22		66		24	48	83	20	10					71
FRN	150	106	11	22		66	39				30	23					18[n]			40
GMW	132	108		50	75			161	10[f]		15									
NAT	263	93	23	21	31		31[a]		35											72
WAR	147	216	16[c]			268		137[b]	21[g]											
Europe	163	92	13[d]	105		10[f]	25	22[g]				15[h]	20[k]							20[e]
Latin America	354	35								71										
ISR	175	64		26	32	13						1247								138
Arabs	564	121		66	34				15[h]		1224	1219								222
Sub-Saharan Africa	62		9[i]	114					13[k]				64							22
NIG/BIA	36	9		21										165						29[j]
IND/PAK	183	81	78	11											601					63
KOS/KON	182	10														181				21
Indochina	1872	51[j]	49		18[n]												3913		14[m]	66
JAP	197	50	23																	
Asia	209		60														12[m]		139	
UNO	114	27	19	47	19		50		24[e]		234	131	31[j]	21	47	28	32			68

Footnotes to cell entries refer to country accounting for the interactions represented in the cell matrix, e.g., "m" means that Thailand and Malaysia comprise the Asia grouping which initiates and receives interactions from Indochina.

[a] GRC/TUR [b] All w/ CZE [c] w/ RUM [d] w/ ALB [e] w/ CYP [f] YUG [g] w/ YUG [h] w/ YUG [i] w/ TAZ [j] w/ SAF [k] BEL/COP [l] w/ VTN [m] TAI/MAL [n] w/ VTN

Data management also refers to the creation and timely updating of smaller, specialized files used in the computation of event data indicators. Most of the indicators discussed below are oriented to interactions between pairs of countries.[4] For reasons of efficiency, it is convenient to retrieve pair-wise data from the analytic file in advance, and to store these data in a separate file for processing as needed. This Dyadic Data File, consisting of selected country pairs, is used each time pairwise data are required to compute a particular indicator, as in user Options 2,3, and 4, Section III. Appendix D lists the country pairs which presently constitute the Dyadic Data File.

For the user interested in pairs of countries not contained in the Dyadic Data File, PULSE permits the user to construct his own pair-wise data file ("Custom Data File"), consisting of event data for one or more country-pairs of his own choosing. He may then compute event data indicators based on these data under Options 2,3, and 4. The construction and use of Custom Data Files is discussed under Options 6 and 7, Section III.

Event Data Indicators

This section defines the event data and indicators available to PULSE users. The following discussion progresses from indicators based on least aggregate to most aggregate data.

Disaggregate or raw event data are themselves the least aggregate indicators available within the PULSE system. These may be retrieved and displayed in tabular form, such as events by time, actor by target, time by arena, and so on, at the option of the user. (Option 5)

---

[4] "Country", as used here, may refer either to a single country or any aggregation of countries, e.g., USA and USSR constitute a country pair as does NATO and Warsaw Pact.

Grouped Event Data. In developing the aggregate indicators which follow, it was desirable from a conceptual viewpoint to reduce the array of more than 60 categories of events to a more manageable number. Considerable testing was done to insure that while reducing the overall number of different behaviors, certain crucial distinctions between types of behavior were preserved. Specifically, the event groups were constructed so that they would form a rough progression from hostile to friendly behavior as follows: (1) Military Incidents; (2) Coercion; (3) Pressure; (4) Communication/Consultation; (5) Support/Agreement; (6) Reconciliation; and (7) Military Disengagement. The assignment of specific event categories to each of the seven groups is documented in Appendix E. Experiments to determine the validity of group composition and the scalability of the event groups relative to each other were subsequently conducted,[5] with favorable results. These event groups constitute the second level of data aggregation.

From these seven event groups, a third level of aggregation can be derived, consisting of three behavorial dimensions: negative (unfriendly), neutral, and positive (friendly). The sum of the event frequencies in Groups 1,2, and 3 was conceptualized as negative behavior, Group 4 was considered neutral, and the sum of the frequencies in Groups 5,6, and 7 was defined as positive behavior. These latter dimensions form the basis of the Relations and Style indicators discussed below.

Involvement and Participation, at a fourth level of data aggregation, are computed by summing the positive, neutral, and negative event frequencies. They are intended to measure the magnitude of international interaction. Involvement is de-

[5] Theodore J. Rubin and Gary A. Hill, Experiments in the Scaling and Weighting of International Event Data. CACI, January, 1973.

fined as the total frequency of actions which flow in both directions between a pair of countries per unit time (i.e., actions from A to B plus actions from B to A). Participation, on the other hand, measures asymmetric behavior: the sum of the actions directed by one member of a country pair to the other.

PULSE allows the user to inspect event groups, the positive, neutral, and negative dimensions, and Participation or Involvement for any of the country pairs in the Dyadic Data File. These frequencies may be displayed as smoothed or actual time series over the entire span of the collection. (Option 4)

The capability for displaying both simple event frequencies and smoothed event frequencies was provided in response to an important problem in the utilization of event data: simple event frequencies are sometimes undesirable because calendar units of time (months, years) are arbitrary relative to the occurrence of events, and because the occurrence of events may be infrequent and sporadic relative to the units of calendar time employed. Smoothing is provided in Option 4 as a means of enabling the user to determine whether differences in the mix of actual event groups, in contrast with the mix of smoothed groups, is significant enough to warrant different conclusions about country pairs of interest.

Smoothing is accomplished by means of a decay function that diminishes each previous value in the actual time series by a factor of one-half for each new point encountered. This procedure has the effect of "carrying over" the impact of previous events into successive time points, where the carry-over effect is reduced by half for each successive time-point, as follows:

$$S_t = 1/2\ (F_t + S_{t-1})$$

Where: S_t = smoothed event frequency at time t for any event group

S_{t-1} = smoothed event frequency at the previous time-point for any event group; and

F_t = unsmoothed, or actual event frequency at time t for any event group.

In contrast to the preceding measures of magnitude, Relations and Policy Style are indicators of the quality of international action. Interaction between a country pair may range from friendly to unfriendly over time, as it consists of a mix of positive, negative, and neutral actions. The Relations indicator is defined as the quality of the flow of actions between a country pair in both directions (i.e., actions from A to B and actions from B to A). Policy Style is defined as the quality of the flow of actions from one country to the other (i.e., actions from A to B).

Relations and Policy Style are measured by the particular mix of positive, negative, and neutral actions of a pair as reported by the data source. Values of Relations and Policy Style are obtained by the function:

$$R, \text{ or } S = \frac{p-n}{p+n+\frac{ne}{2}}$$

Where: R = Relations
S = Policy Style
p = frequency of positive actions reported, in both directions for R, or in one direction for S
n = frequency of negative actions reported, in both directions for R, or in one direction for S
ne = frequency of neutral actions reported, in both directions for R, or in one direction for S (neutral actions are accorded only one-half weight in measuring R and S)

The values of this function range from +1.0 to -1.0. A plus value for R or S indicates that positive actions exceed negative actions, and, therefore, that R or S is friendly; A minus value of R or S indicates the opposite. The magnitude of the plus or minus values of R or S indicates the degree to which Relations or Policy Style are positive or negative, respectively (i.e., how friendly or how unfriendly). Relations values are obtained with Option 2, and Policy Style is available through Option 3, below.

Concentration, representing a fifth level of data aggregation, is designed to measure the extent to which a particular country concentrates its international behavior over time with respect to the following selected target countries:

(1) The "world", comprised of approximately 150 target countries retrieved from the New York Times collection for this purpose;

(2) The "geopolitical region" (e.g., South America, Southeast Asia, Eastern Europe, etc.); and

(3) The "primary targets", that is, the ten countries toward which the actor country was most active over each particular time period.

(4) The ten primary target countries within selected regions.

Concentration is measured over six-month time intervals from the beginning of the collection. Calculations are made from smoothed as well as actual event frequencies, where smoothing in this case is achieved by overlapping the data as described in Option 1, below. Concentration for a particular actor may be calculated for all events (Groups 1-7), or for negative events only (Groups 1-3).

Concentration is defined in each case as the square of the sum of the event frequencies, divided by the sum of the squared event frequencies:

$$C_t = \frac{\left(\sum_{i=1}^{N} e\right)^2}{\sum_{i=1}^{N} e^2}$$

Where: C_t = concentration at time t for any actor relative to any of three constituencies;

e = total number of events directed from Actor A to Target B in constituency of size N;

N = number of target countries in a given constituency.

This formulation has the effect of reducing the impact of relatively small event frequencies while amplifying the effect of relatively large frequencies. The resulting measures, which range from 1.0 to N, may then be interpreted as the basic number of countries on which a given actor is focusing its activities, relative to each of the four target groups.

SECTION III. PULSE EXECUTION

This section explains PULSE questions and user responses. All responses to questions posed by PULSE are underlined. The symbol (CR) indicates a carriage return. The user should refer to Appendix F, "Interactions with the G.E. System," for instructions on how to access the PULSE system through G.E. timesharing.

The user initiates PULSE execution by typing:

RUN PULSE (CR)

Periodically, new versions of the PULSE system are implemented. These versions include new features and enhancements. On these occasions, PULSE will direct the user to a source of new features information, either on-line, or off-line, at this point in the program.

The program then types:

ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?

Valid responses to this query are the numbers zero through seven to continue processing, and the number "99" which stops the program.

The international event data and indicators described in the preceding section have been organized into seven computing and display options, each of which is invoked by typing a number

from one to seven in response to the "ENTER OPTION" query. Assuming the user typed a carriage return in response to this query, PULSE would provide the following list of options:

ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...? (CR)

P U L S E O P T I O N S

1-- Tabular display of Concentration Indicators for selected major actor nations relative to more than 150 possible target nations.

2-- Tables or plots of Relations and Involvement Indicators for any of the country-pairs in the Dyadic Data File (DDF), or any pairs in a user's Custom Data File (CDF). Indicators may also be requested for selected issue-coded DDF country-pairs.

3-- Tables or plots of Policy Style and Participation Indicators for any of the country-pairs in the Dyadic or Custom Data File, plus issue-oriented Policy Style and Involvement Indicators for selected DDF country-pairs.

4-- Tables or plots of monthly smoothed or actual Event Data Group frequencies, Positive-Neutral-Negative groups, and Participation/Involvement Indicators for any DDF or CDF country-pair.

5-- Accepts requests for Analytic (numerical) and/or Descriptive (English-language abstract) retrievals.

6-- Accepts requests for Analytic retrievals required to build one or more Custom Data Files for the user. Retrievals consist of monthly event group frequencies controlled for country pairs of interest to the user.

7- Displays and/or processes retrieval output for Options 5,6.

ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?99 (CR)

It should be noted that for this question as for most other questions posed by PULSE, a user may indicate that he does not understand the question, or that he does not know the required responses, by typing a carriage return. In general, the program will respond with a brief tutorial message before repeating the question.

Option 1. For Concentration indicators, the normal sequence of PULSE questions is as follows:

SPECIFY ACTOR COUNTRY (3-LETTER CODE)...?

SPECIFY TARGET GROUP (1-4), OR TYPE ZERO FOR LIST...?

DO YOU WANT TO SEE MEASURES BASED ON ALL SEVEN C.A.C.I. EVENT GROUPS, OR MEASURES BASED ON NEGATIVE EVENT GROUPS ONLY (0=ALL EVENTS; 1=NEGATIVE EVENTS)...?

MORE CONCENTRATION DISPLAYS (0=YES; 1=NO)...?

Currently, Concentration indicators are available only for selected actor countries with sufficient data to be of interest under this option. Countries are recognized by the program as a three-character code for the country name as shown in Table 1.

The user is next asked to specify the target groups for which concentration indicators are to be displayed: the world, primary targets, primary regions, or primary targets within selected regions.

The user is then asked whether computations should be based on all of the seven event groups, or whether only negative events (Groups 1,2, and 3) are to be used.

Table 2 consists of concentration indicators for Japan relative to primary targets in each of ten time periods. Each time period is defined as a 24-month period, beginning in January, 1966, and moving every six months. For example, the first time period encompasses January, 1966 through December, 1967, period two extends from July, 1966 through June, 1968, and so on. Each successive time period overlaps the previous time period by 18 months for smoothing purposes.

Table 2 displays the code names of the ten countries toward which Japanese activity was greatest in each time period, rank-ordered from left to right. Also presented are the event fre-

TABLE 1.

Major Actors for Which Concentration Measures are Available

Actor	How Recognized by the Program
Chinese People's Republic	CPR
East Germany	GME
France	FRN
India	IND
Israel	ISR
Japan	JAP
Soviet Union	USR
United Arab Republic	UAR
United Kingdom	UNK
United States	USA
West Germany	GMW

TABLE 2.

Concentration Measures for Japan.

ENTER OPTION NUMBER (1 - 7, 0 FOR LIST, 99 TO STOP)...?1 (CR)

SPECIFY ACTOR COUNTRY (3-LETTER CODE)...?JAP (CR)

SPECIFY TARGET GROUP (1-4), OR TYPE ZERO FOR LIST...?0 (CR)

TARGET GROUPS CONSIST OF THE FOLLOWING:
1 -- THE 'WORLD' OF 155 TARGET COUNTRIES IN THE DATA BASE;
2 -- TEN MOST IMPORTANT (PRIMARY) TARGET COUNTRIES AT TIME t;
3 -- TEN PRIMARY TARGET REGIONS AT TIME t;
4 -- TEN PRIMARY TARGET COUNTRIES WITHIN SELECTED REGIONS AT TIME t.

SPECIFY TARGET GROUP (1-4), OR TYPE ZERO FOR LIST...?2 (CR)

DO YOU WANT TO SEE MEASURES BASED ON ALL SEVEN
C. A. C. I. EVENT GROUPS, OR MEASURES BASED ON NEGA-
TIVE EVENT GROUPS ONLY (0=ALL EVENTS; 1=NEGATIVE EVENTS)...?0 (CR)

PRIMARY JAP TARGET COUNTRIES

1	USA	USR	CPR	KOS	ISR	CAN	INS	PHI	VTN	IND
2	USA	CPR	USR	INS	ISR	VTN	KOS	CAN	PHI	IND
3	USA	USR	CPR	INS	ISR	VTN	IND	CHI	YUG	FRN
4	USA	USR	CPR	INS	IND	VTN	CHI	ISR	YUG	FRN
5	USA	USR	CPR	INS	KOS	AUL	IND	YUG	UNK	SIN
6	USA	USR	CPR	IND	KOS	AUL	VTN	KOR	GER	SIN
7	USA	USR	CPR	KOS	IND	AUL	VTN	PAK	KOR	GRN
8	USA	USR	KOS	CPR	AUL	SIN	VTN	IND	UNK	INS
9	USA	USR	CPR	IND	KOS	CHI	NOR	GRN	UNK	CAN
10	USA	USR	CPR	ISR	FRN	PLN	INS	TAI	KOS	CHI

PRIMARY JAP TARGET COUNTRY FREQUENCIES, CONCENTRATION

1	29.	12.	7.	4.	3.	3.	2.	2.	2.	2.	3.19	66.
2	33.	11.	6.	5.	4.	3.	3.	3.	2.	2.	3.69	74.
3	49.	13.	7.	5.	3.	2.	2.	2.	2.	2.	2.34	63.
4	52.	12.	5.	3.	3.	2.	2.	2.	2.	2.	2.12	59.
5	60.	10.	5.	3.	3.	2.	2.	2.	2.	1.	2.05	101.
6	65.	21.	6.	3.	3.	2.	2.	2.	2.	1.	2.11	107.
7	64.	13.	6.	5.	3.	2.	2.	2.	2.	2.	1.91	101.
8	62.	14.	5.	4.	3.	2.	2.	2.	2.	1.	1.89	97.
9	82.	10.	5.	2.	2.	2.	2.	2.	2.	2.	1.37	111.
10	77.	10.	6.	4.	3.	3.	2.	2.	2.	2.	1.73	134.

CONCENTRATION MEASURES FOR JAP , GROUP 1-7, TIME OPTION 2

SAME CONCENTRATION DISPLAYS (0=YES; 1=NO)...?1 (CR)

quencies (A to B only) for all events (Groups 1-7) directed by Japan at each respective target. The concentration indicator appears as column 12 of the second table in Table 2. Participation (the smoothed, A-to-B event frequency for the target group) is presented in column 13.

The user is given the opportunity to obtain additional displays after the target frequencies and concentration indicators have been typed.

Option 2. Relations and Involvement indicators may be computed for any of the country pairs in the Dyadic Data File (see Appendix D), or for any country pair in a Custom Data File constructed by means of Options 6 and 7, below.

The normal sequence of questions posed by PULSE under this option are as follows:

```
DATA FILE NAME ( <CR> FOR DDF, OR CDF NAME)...?
RELATIONS FOR HOW MANY DYADS (1-nnn)...?
WHICH DYADS (1-nnn)...?
TIME OPTION (1-5), OR TYPE ZERO FOR LIST...?
START AT WHICH MONTH (6601-yymm)...?
DO YOU DESIRE (1) TABLES; (2) TABLES & PLOTS; (0) ZETA PLOTS...?
DO YOU DESIRE ADDITIONAL RELATIONS INDICATORS (0=YES; 1=NO)...?
```

"Data File Name" refers to the name of the country-pair data file to be used in computing the Relations and Involvement indicators. A carriage return signifies that the file containing the country pairs listed in Appendix D is to be used. If the user wishes to compute Relations and Involvement for country pairs in his own Custom Data File, the name of that file may be entered at this point. If the program does not recognize the file name entered by the user, a message to that effect is typed and the program repeats the "ENTER OPTION" query.

If the file name is valid, the program types:

RELATIONS FOR HOW MANY DYADS (1-nnn)...?

At this time, the user may request indicators for as many pairs as are contained in the file he has specified, where "nnn" is the total number of dyads present in the file.

The program then requests one or more numbers which identify the pairs for which computations are to be made:

WHICH DYADS (1-nnn)...?

Numerical codes for country pairs in the Dyadic Data File are presented in Appendix D. For Custom Data Files, the user should enter one or more numbers which correspond to the sequence in which particular pairs occur in his file. For either type of file, the numeric identification codes may be entered on a single line, if desired, where each entry is separated by a single blank from any other entry. If any one line contains fewer than the required number of entries, the program types a question mark to indicate that more entries are expected. The user should continue typing country pair identification codes on as many lines as are needed for this purpose.

Next, the user is asked to indicate the units of time over which computations are to be made. Responses to this question and to those which follow will apply to all of the pairs specified in the current run.

TIME OPTION (1-5), OR TYPE ZERO FOR LIST...?

Five time intervals are available:

1-- 12-month calendar year;

2-- Semi-annually, for each calendar year;

3-- Quarterly, for each calendar year;

4-- Any 12-months, with moving three-month intervals; and

5-- Any 24-months, with moving six-month intervals.

The user enters a number from 1 to 5 to select the desired interval. Maximum data smoothing is provided by time options 4 and 5, which tend to be more appropriate for country pairs with relatively light or irregular patterns of interaction. Where interactions are more frequent, quarterly, semi-annual, and yearly time intervals may be specified.

PULSE allows the user to select the year and month at which computations are to begin:

START AT WHICH MONTH (6601-yymm)...?

where "yymm" is the latest starting month appropriate for a particular time option. The correct response is a single four-digit number, where the first two digits represent the year and the last two digits represent the month. For example, a starting date of January 1, 1973 would be specified as "7301". If the date entered is out of bounds, the question will be repeated. If the date falls within bounds, but is too late in time to permit construction of at least one data interval, the data will be adjusted by the program and a diagnostic given to this effect.

Calculations may be displayed in any one of three formats. It is this output format which is requested next:

DO YOU DESIRE (1) TABLES; (2) TABLES & PLOTS; (0)ZETA PLOTS...?

A response of "1" causes the indicators to be displayed in tabular form at the communications terminal. Labeling begins with the name of the country pair and identification of the time points for which calculations are made. Included in this display are Relations and Involvement indicators, as well as the Positive, Neutral, and Negative components used in their calculation. Also displayed is a tally of any interactions involving force ("Military incidents). Occasionally, a Relations

value of "5.00" appears in the printout. This value denotes a level of data which is insufficient for making a Relations calculation (i.e., where Involvement is less than five events). As mentioned previously, valid Relations values range from +1.0 to -1.0.

Entry of a "2" causes a table to be typed as with "1" and a plot of Relations to be constructed at the terminal, for each country pair. Entry of "0" or (CR) specifies that one or more plots are to be drawn on a timesharing plotter interfaced with the user's terminal.[6]

If a "0" is specified, two additional questions are presented. First, the user is given the opportunity of requesting either a plot for the entire computational period, or a partial plot which terminates at a point indicated by the user:

> IF YOU DESIRE A BREAKPOINT, ENTER STOP YEAR (66-nn), OR ZERO FOR THE FULL PLOT...?

It is anticipated that while most users will want complete plots, certain users with specialized educational or forecasting objectives may find it useful to display less than the full time series for which data is available.

Secondly, where Relations indicators have been requested for more than one dyad, the user may elect to plot Relations and Involvement individually, on separate axes, or as a composite

---

[6] Acquisition of a timesharing plotter is completely at the discretion of the user, and is by no means essential for meaningful use of the PULSE System. However, the PULSE System does produce 8½ by 11-inch plots on a Zeta 230 Incremental Plotter. Users desiring to avail themselves of this capability should contact CACI for further information.

plot on the same set of axes:

DO YOU DESIRE ONE COMPOSITE PLOT, OR n SEPARATE PLOTS (0=COMPOSITE: 1=SEPARATE)...?

A zero results in a composite plot, while "1" results in as many separate plots as there are country pairs in a particular run.

During any display option, the user may terminate unwanted print out with the break key on his terminal. In this case, or in any event when all calculations have been displayed, the program types:

DO YOU DESIRE ADDITIONAL RELATIONS INDICATORS (0=YES; 1=NO)...?

A response of "0" begins a new Relations cycle, with the request for a "DATA FILE NAME", while entry of a "1" returns the user to the "ENTER OPTION" phase.

An example of a conversational sequence used to request plots of Relations values appears in Table 3. In Table 3, the user indicates with a carriage return that country pairs in the Dyadic Data File are to be used. Specifically, three country pairs are requested (USA-Japan, USSR-Japan, and the Chinese Peoples' Republic-Japan), identified to the program by the numbers 42, 65, and 86, respectively (Appendix D). The choice of time option 5 results in calculations based on 24-month intervals moving every six months, beginning in January, 1966 ("6601"). The user further specifies that output should take the form of a composite plot, with all three dyads appearing on the same set of axes. The period of activity to be plotted is from January, 1966, through December, 1972.

Table 4 depicts the resulting plot. Relations and Involvement values for each country-pair are computed, plotted and labeled in the order specified by the user. In this example, the

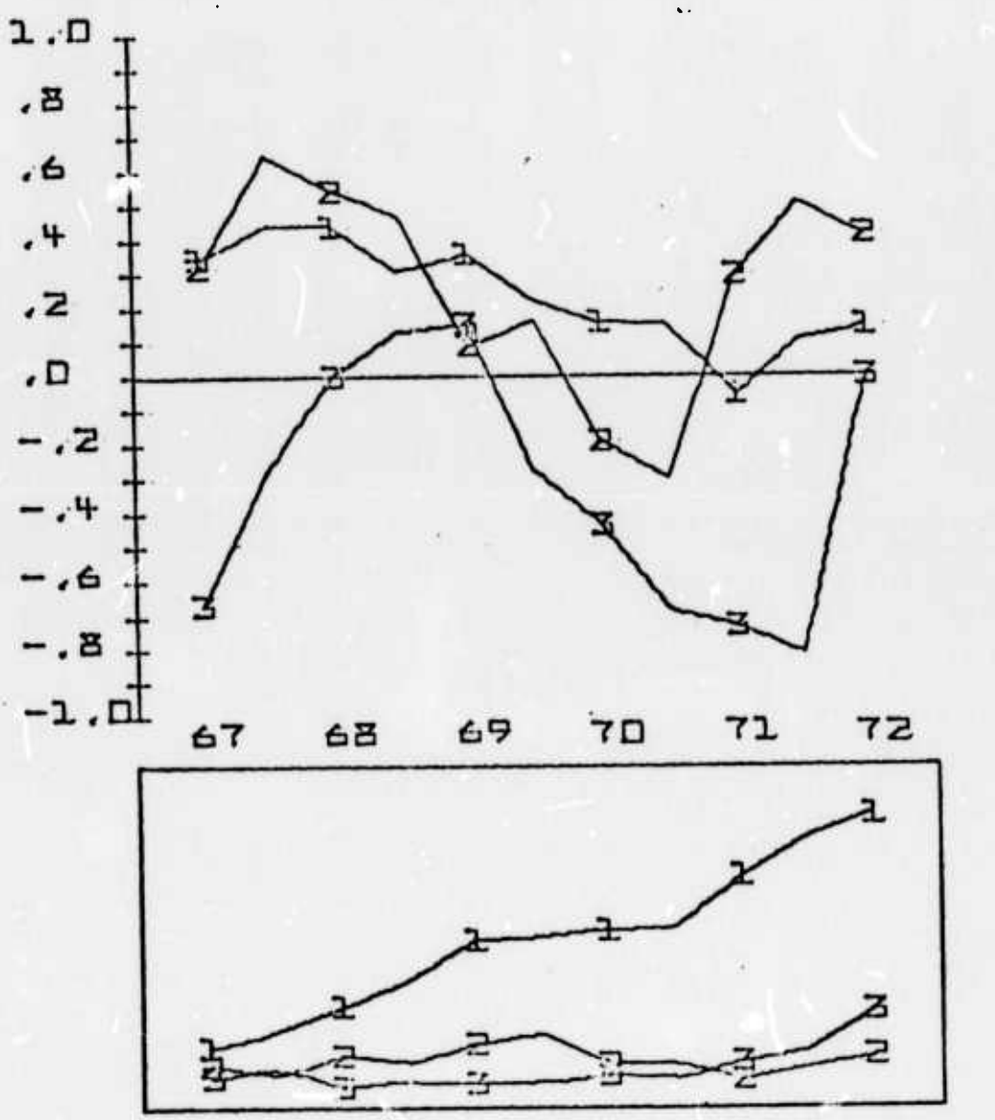
TABLE 3.

Conversational Sequence -- Sample Relations Plot.
(User responses underlined)

```
ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?2 (CR)

DATA FILE NAME (<CR> FOR DDF, OR CDF NAME)...? (CR)

RELATIONS FOR HOW MANY DYADS (1-195)...?3 (CR)

WHICH DYADS (1-195)...?42 65 86 (CR)

TIME OPTION (1-5), OR TYPE ZERO FOR LIST...?5 (CR)

START AT WHAT MONTH (6601-7201)...?6601 (CR)

DO YOU DESIRE (1) TABLES; (2) TABLES & PLOTS; (0) ZETA PLOTS (1,2,0)...?0 (CR)

IF YOU DESIRE A BREAKPOINT, ENTER STOP YEAR (66-72), OR
ZERO FOR THE FULL PLOT...?72 (CR)

DO YOU DESIRE ONE COMPOSITE PLOT, OR   3 SEPARATE
PLOTS (0=COMPOSITE; 1=SEPARATE)...?0 (CR)

/P//P//P//P//P//P//P//P/870      (Plotting taking place.)
DO YOU DESIRE ADDITIONAL RELATIONS INDICATORS (0=YES; 1=NO)...? 1 (CR)


ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...? 99 (CR)

USED     3.82 UNITS
```

TABLE 4.

Sample Plot (Relations Option)



curves labeled "1" refer to the first dyad, US-Japan, the curves labeled "2" refer to USSR-Japan, and the third set of curves depict Relations and Involvement for China(CPR)-Japan. In constructing the Involvement curves in Table 4, each Involvement series is scanned to determine the maximum data value, which in turn is used as the scaling factor for the Involvement plot. This maximum is reported on the plot so that the user can determine the rough magnitude of event frequencies on which the Relations values are based. Annotations for data year are centered at a point corresponding to December 31st of the year indicated.

When separate plots are requested, the formats and conventions are basically the same, except that the Involvement curve is, in addition, broken down into Positive and Negative components for each country pair.

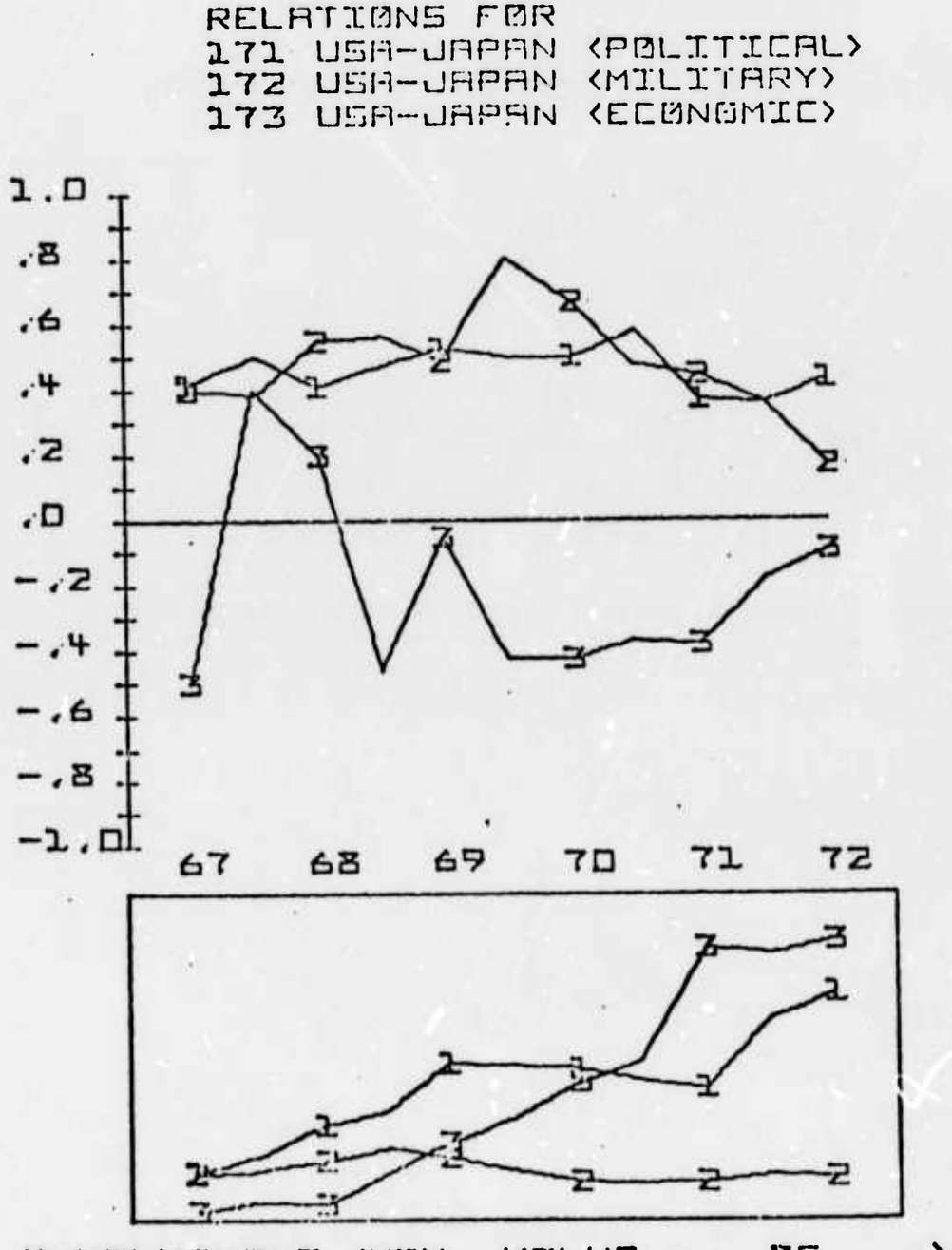
Had the user in this example desired to inspect the actual values used in plotting, the sequence could readily have been repeated, using exactly the same entities and time variables for computation, but with tables and/or terminal plots, rather than a Zeta plot, as output.

One use of the sample plot in Table 4 is to illustrate how an actor nation of interest, Japan in this case, gravitates toward each of three major powers in terms of overall relations, the United States, USSR and the Chinese Peoples' Republic (CPR). A substantial number of similar examples are easily constructed by requesting Relations plots or tables for two or more country-Pairs having one member in common.

Using an analogous call-up procedure, but choosing instead a number of issue-coded country-pairs (pairs 171-194 in Appendix D) one can produce a plot which constitutes a refinement of one of the Relations curves of interest in Table 4, namely, the curve for U.S.-Japanese relations. Table 5 contains a plot of

TABLE 5.

Sample Plot: Relations Option
(Issue-Coded Pairs)



90<

U.S.-Japanese political, military, and economic relations (dyads 171, 172, 173), plotted in a composite manner. For country-pairs for which issue-coded data is available, it thereby becomes possible to judge which type of activity, political, military, or economic, shows the most improvement or decline, and which type is having the greatest impact in the overall Relations curve of the type illustrated in Table 4. In Table 5, economic relations between the United States and Japan appear to be changing more rapidly than political or military relations, and the last points plotted show Involvement of each country with the other to be greatest in this dimension.

Option 3. Under this option, Policy Style and Participation indicators are computed and displayed for any of the country pairs in the Dyadic Data File (Appendix D), or for any country pair in a user's Custom Data File. In contrast to Relations, Policy Style is an asymmetric measure. It is designed to characterize the quality of interactions directed by one member of a country pair to another. For any one country pair of interest to the user, indicators are displayed in both directions (A to B and B to A). The sequence of questions posed by PULSE for this option is nearly identical to the sequence presented for Option 2:

```
DATA FILE NAME ( <CR> FOR DDF, OR CDF NAME)...?
POLICY STYLE FOR HOW MANY DYADS (1-nnn)...?
WHICH DYADS (1-nnn)...?
TIME OPTION (1-5) or TYPE ZERO FOR LIST...?
START AT WHICH MONTH (6601-yymm)...?
DO YOU DESIRE (1) TABLES; (2) TABLES & PLOTS; (0)ZETA PLOTS...?
```

If Zeta plots are requested, two additional questions will be asked:

```
IF YOU DESIRE A BREAKPOINT, ENTER STOP YEAR (66-nn), OR
ZERO FOR THE FULL PLOT...?
SHOULD PLOT(S)CONSIST OF A-TO-B STYLE, B-TO-A STYLE, OR
BOTH (TYPE 'AB', 'BA', OR 'BOTH')...?
```

If 'BOTH' is not typed in response to the latter query, and if more than one country pair has been specified, the option for composite plotting is presented:

```
DO YOU DESIRE ONE COMPOSITE PLOT, OR n SEPARATE
PLOTS (0=COMPOSITE; 1=SEPARATE)...?
```

When all display functions are completed, the program asks,

```
DO YOU DESIRE ADDITIONAL POLICY STYLE INDICATORS
(0=YES; 1=NO)...?
```

Appropriate responses to the preceding questions are discussed in detail under the previous heading. Table 6 contains an example of the conversational sequence required to produce Policy Style and Participation indicators in a tabular display format.

Option 4. This option provides the capability to display both smoothed and unsmoothed grouped event frequencies on a month-to-month basis. In contrast to options 1-3, where smoothing is achieved by the overlapping of data intervals, smoothing in this option is achieved by means of a decay function, as described previously. Whereas smoothing achieved with moving intervals results in relatively lengthy time periods (12 months or 24 months) as the unit of analysis, a decay function provides smoothing while preserving a month-to-month perspective on the data. This option should be helpful in pinpointing those months which are particularly active in terms of Positive, Neutral, Negative and Participation or Involvement totals. These frequencies can alternately be displayed as tables or plots.

The sequence of questions for this option is as follows:

```
DATA FILE NAME ( <CR> FOR DDF, OR CDF NAME)...?
TIME SERIES FOR HOW MANY DYADS (1-nnn)...?
WHICH DYADS (1-nnn)...?
START AT WHICH MONTH (6601-yymm)...?
DO YOU WANT TO SEE SMOOTHED OR ACTUAL DATA (0=SMOOTHED;
1=ACTUAL)...?
DO YOU WISH TO SEE (1) INVOLVEMENT DATA, OR (2)
PARTICIPATION DATA (TYPE 1 or 2)...?
```

TABLE 6.

Sample Conversational Sequence For Tables
(Policy Style and Participation)

```
ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?3 CR
DATA FILE NAME (<CR> FOR DDF, OR CDF NAME)...? CR
POLICY STYLE FOR HOW MANY DYADS (1-195)...?3 CR
WHICH DYADS (1-195)...?42 65 86 CR
TIME OPTION (1-5), OR TYPE ZERO FOR LIST...? CR for list.

 DATA CAN BE AGGREGATED FOR COMPUTING AS FOLLOWS:

      1 -- 12-MONTH CALENDAR YEAR;
      2 -- SEMI-ANNUALLY, FOR EACH CALENDAR YEAR;
      3 -- QUARTERLY, FOR EACH CALENDAR YEAR;
      4 -- 12 MONTHS WITH MOVING THREE-MONTH INTERVALS;
      5 -- 24 MONTHS WITH MOVING SIX-MONTH INTERVALS;

TIME OPTION (1-5), OR TYPE ZERO FOR LIST...?4 CR
START AT WHICH MONTH (6601-7301)...? CR for explanation.

A SINGLE DATE IS EXPECTED IN THE FORM 'YYMM'
FALLING WITHIN THE RANGE INDICATED. COMPUTATIONS
WILL BEGIN WITH DATA AT THAT POINT.

START AT WHICH MONTH (6601-7301)...?7202 CR User enters inappro-
                                           priate starting date.
FOR TECHNICAL REASONS, STARTING MONTH HAS BEEN CHANGED TO 7201

DO YOU DESIRE (1) TABLES; (2) TABLES & PLOTS; (0) ZETA PLOTS (1,2,0)...?1 CR
```

TABLE 6. (cont.)

DYAD 042 US(A) -JAPAN (B) (Tabular Display Begins.)

	A TO B						B TO A					
	(Military, Negative, Neutral, Positive, Participation Totals; Style.)											
12 MONTHS ENDING W/	MIL	NEG	NEUT	POS	PART	STYLE	MIL	NEG	NEUT	POS	PART	STYLE
12/31/72	0	3	13	17	33	0.53	0	12	12	23	47	0.27
.	0	8	21	15	44	0.21	0	11	20	24	55	0.29
.	0	10	22	10	42	0.	0	13	19	24	56	0.24
.	0	12	24	24	60	0.25	0	9	22	24	55	0.34
12/31/73	0	14	26	22	62	0.16	0	8	24	21	53	0.32
.	0	9	23	21	53	0.29	0	5	20	21	46	0.44
.	0	8	20	21	49	0.33	0	3	21	15	39	0.42

DYAD 065 USSR(A) -JAPAN (B)

	A TO B						B TO A					
12 MONTHS ENDING W/	MIL	NEG	NEUT	POS	PART	STYLE	MIL	NEG	NEUT	POS	PART	STYLE
12/31/72	0	2	1	7	10	0.53	0	3	4	6	13	0.27
.	0	2	1	1	4	5.00	0	3	4	2	9	-0.14
.	0	3	3	1	7	-0.36	0	2	4	2	8	0.
.	0	2	3	1	6	-0.22	0	2	2	2	6	0.
2/31/73	0	2	9	7	18	0.37	0	3	6	7	16	0.31
.	0	3	8	9	20	0.37	0	3	4	7	14	0.33
.	0	2	8	11	21	0.53	0	2	6	10	18	0.53

DYAD 086 CPR(A) -JAPAN (B)

	A TO B						B TO A					
12 MONTHS ENDING W/	MIL	NEG	NEUT	POS	PART	STYLE	MIL	NEG	NEUT	POS	PART	STYLE
12/31/72	0	9	4	13	26	0.17	0	2	6	8	16	0.46
.	0	1	6	13	20	0.71	0	2	7	9	18	0.48
.	0	0	6	14	20	0.82	0	3	7	9	19	0.39
.	0	1	3	10	14	0.72	0	4	4	5	13	0.09
12/31/73	0	1	4	4	9	0.43	0	3	5	4	12	0.11
.	0	2	2	5	9	0.37	0	3	4	5	12	0.20
.	0	2	2	5	9	0.37	0	1	4	6	11	0.56

DO YOU DESIRE ADDITIONAL POLICY STYLE INDICATORS (0=YES; 1=NO)...?1 CR

ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?99 CR

SED 2.71 UNITS (Computer Resource Units expended.)

If Participation is specified:

FOR PARTICIPATION, DO YOU WANT A-TO-B OR B-TO-A DATA (TYPE 'AB' OR 'BA')...?

In any case:

DO YOU DESIRE (1) TABLES; (2)TERMINAL PLOTS; (0) ZETA PLOTS...?

If Zeta plots are specified:

IF YOU DESIRE BREAKPOINTS, ENTER A STOP YEAR (66-nn), OR ZERO FOR THE FULL PLOT...?

If plots and more than one country pair are specified:

DO YOU DESIRE ONE COMPOSITE PLOT, OR n SEPARATE PLOTS (0=COMPOSITE; 1=SEPARATE)...?

If a composite plot is to be made:

FOR YOUR COMPOSITE PLOT, SELECT ONE OF THE FOLLOWING TO BE PLOTTED: (1) TOTAL EVENTS; (2) POSITIVE EVENTS; (3) NEGATIVE EVENTS; or (4) NEUTRAL EVENTS...?

If separate plots are to be made:

FOR EACH SEPARATE PLOT, YOU CAN SPECIFY ANY OR ALL OF THE FOLLOWING TIME SERIES:

PLOT TOTAL EVENTS (0=YES; 1=NO)...?

PLOT POSITIVE EVENTS (0=YES; 1=NO)...?

PLOT NEGATIVE EVENTS (0=YES; 1=NO)...?

PLOT NEUTRAL EVENTS (0=YES: 1=NO)...?

When all display functions are complete:

MORE TIME SERIES DISPLAYS (0=YES: 1=NO)...?

In general, the appropriate responses to questions posed under this option are analogous to the responses for Options 2 and 3, above.

Tabular output consists of either actual or smoothed event frequencies for either Participation or Involvement indicators, for each country pair specified. If Involvement indicators are specified, each month of data from the user's starting point through the end of the collection is displayed, where the data

consist of smoothed or unsmoothed frequencies for the seven event groups, Positive, Negative, and Neutral groups, and the Involvement total. If Participation is specified, the user is further asked whether A-to-B or B-to-A frequencies are to be displayed. The seven event groups, Positive, Negative, Neutral, and Participation totals are then displayed for the appropriate event direction, either A-to-B or B-to-A.

For plotting, the user decides whether composite plots or separate plots are appropriate for his purposes. If composite plots are specified, output will be restricted to a choice of four frequency types to avoid confusion when more than one country pair is being overplotted on the same set of axes: (1) Total events, i.e., Participation or Involvement for that pair; (2) Positive events for each pair specified; (3) Negative events for each pair specified; or (4) Neutral events for each pair. The choices are invoked by typing the numbers 1-4 in response to the composite plotting question.

If separate plots are specified for each pair, then the user may elect to overplot one or more Participation or Involvement time series for that pair on the single set of axes drawn for that pair: Total, Positive, Negative, and Neutral time series. These time lines will appear on the same plot for each dyad, scaled to the maximum and minimum values which occur across the time series requested.

The following plotting conventions are used: first, the total event time series will always appear above any other time series when it is requested. Positive time series are annotated with "+" symbols at every 12th data point (December of each year). Negative time series are solid lines without any symbols, but where negative and total event time series appear on the same set of axes, little difficulty should be encountered distinguishing the two. Neutral event time series are annotated with

the symbol "=" at every 12th data point. Frequency of events will always be plotted as the vertical, or Y-axis, while time in months will always be plotted as the horizontal, X-axis. Annotations for the x-axis include tic marks drawn for each calendar quarter, and year annotations centered at a point corresponding to December 31 of the year indicated. Finally, whenever participation is requested, a label indicating whether A-to-B or B-to-A data is present will be drawn.

Again taking up the US-Japan example used previously, one interpretation of the plots drawn in previous options is that the economic aspects of US-Japanese relationships are changing rapidly and in a direction of potential interest to both parties. As a further disaggregation of the trend lines drawn in previous options, a time series plot of US-Japan data, coded for economic issues was specified with the conversational sequence in Table 7 and plotted as shown in Table 8. In this plot, smoothed event totals are plotted with negative event totals, to see both the timing of what might be termed "new" economic initiatives, and the extent to which such initiatives were primarily "helpful" or "harmful". The presence of a modest negative component in late 1971 might be explored further by means of Option 5.

Option 5. This option accepts control instructions from the user for both analytic (numerical) and descriptive (English language abstract) retrievals of actual international affairs events. One or more retrievals may be requested at any given time. Retrievals of either type may encompass no more than a few events occurring in a particular month, or they may encompass the entire chronology, depending on user inputs to the program. For the New York Times collection, more than 70,000 events are accessible under this option.

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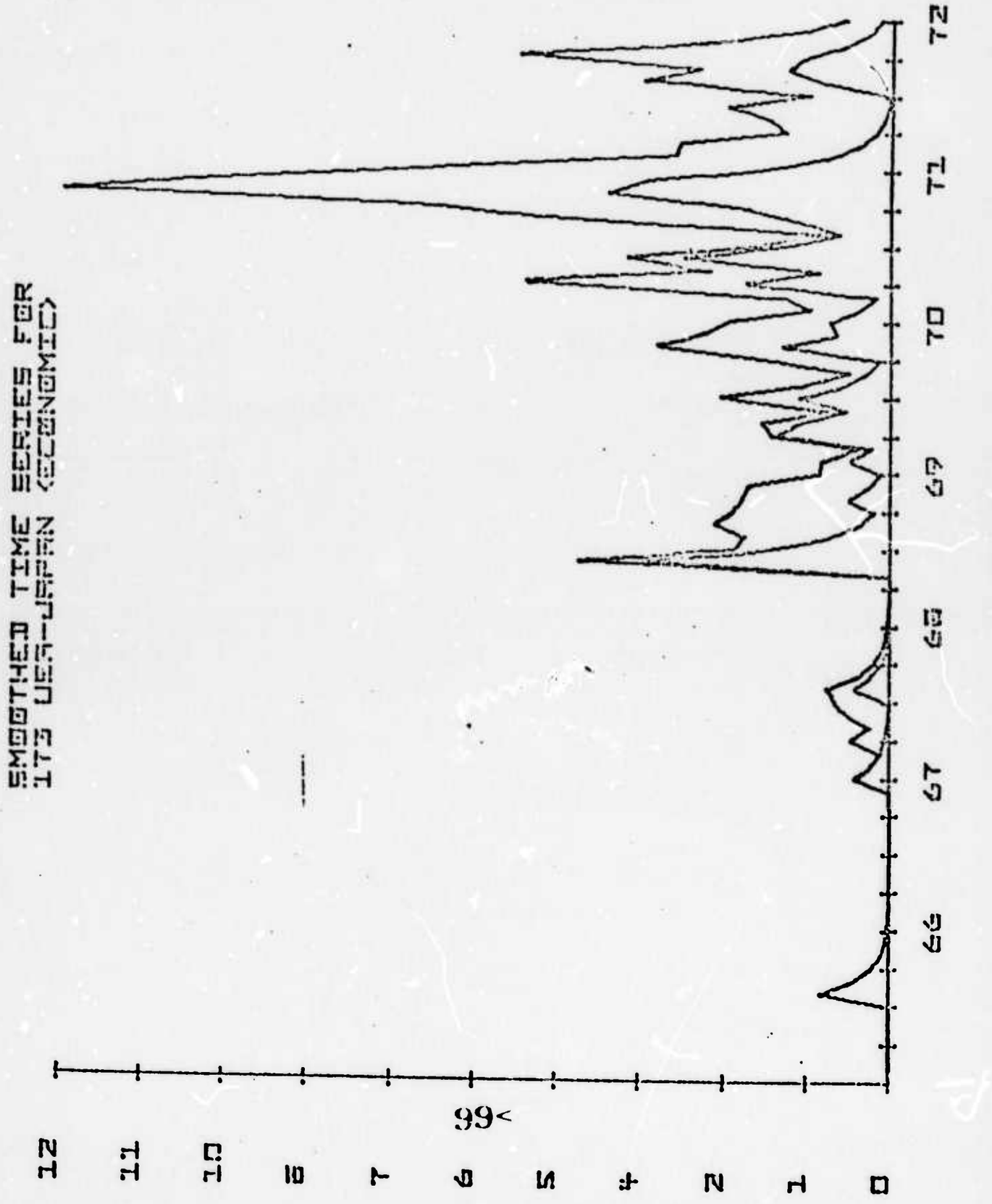
TABLE 7.

Sample Conversational Sequence for Time Series Plotting.

```
ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?4 (CR)
DATA FILE NAME ( <CR> FOR DDF, OR CDF NAME)...? (CR)
TIME SERIES FOR  HOW MANY DYADS (1-195)...?1 (CR)
WHICH DYADS (1-195)...?173 (CR)
START AT WHICH MONTH (6601,7202)...?6601 (CR)
DO YOU WANT TO SEE SMOOTHED OR ACTUAL DATA (0=SMOOTHED; 1=ACTUAL)
...?0 (CR)
DO YOU WISH TO SEE (1) INVOLVEMENT DATA, OR (2) PARTICIPATION
DATA (TYPE 1 OR 2)...?1 (CR)
DO YOU DESIRE PLOTS OR TABLES (0=PLOTS; 1=TABLES)...?0 (CR)
FOR EACH SEPARATE PLOT, YOU CAN SPECIFY ANY OR ALL OF THE
FOLLOWING TIME SERIES:
PLOT TOTAL EVENTS (0=YES; 1=NO)...?0 (CR)
PLOT POSITIVE EVENTS (0=YES; 1=NO)...?1 (CR)
PLOT NEGATIVE EVENTS (0=YES; 1=NO)...?0 (CR)
PLOT NEUTRAL EVENTS (0=YES: 1=NO)...?1 (CR)
\P\\P\870   (PLOTTING TAKING PLACE)
MORE TIME SERIES DISPLAYS (0=YES; 1=NO)...?1 (CR)
ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?99 (CR)
```

TABLE 8.

Sample Time Series Plot (US-Japan Total and Negative Events with Smoothing.)



The sequence of questions for this option varies as a function of user responses to previous questions in the sequence. All run-time sequences are constructed from the following questions, however:

```
SOURCE...?
RETRIEVAL TYPE (A/D)...?
SUPPRESS ANALYTIC OUTPUT (Y/N)...?
HOW MANY RETRIEVALS...?
DATE BOUNDARIES (YYMM,YYMM)...?
ROW- VARIABLE ...?
PARTITION (Y/N)...?
POSITIONS (begin,end)...?
S/D/A variable ...?
HOW MANY CASES...?
TYPE EACH CASE SEPARATED WITH A BLANK?
COL- VARIABLE ...?
CTL1 VARIABLE ...?
CTL2 VARIABLE ...?
CTL3 VARIABLE ...?
TITLE...?
```

The first question, "SOURCE...?", requests the name of the source collection from which the retrieval is to be made. PULSE has the capability to manage multiple event data collections simultaneously. As these collections become available through the PULSE system, retrievals from each may be specified at this point. At present, a response of "N" is the only valid response, denoting the New York Times collection.

In response to "RETRIEVAL TYPE(A/D)...?", the user should type "A" for an analytic retrieval and "D" for a retrieval which is both descriptive and analytic. Descriptive retrievals require essentially all of the internal logic required to produce an analytic retrieval, and therefore, as a matter of convenience

and economy, the user can obtain both analytic and descriptive printouts from the same run if desired. If a descriptive retrieval is specified, the user is asked his preference:

SUPPRESS ANALYTIC OUTPUT (Y/N)...?

A response of "Y" for yes causes the program to display only the textual abstracts associated with a particular run, while a response of "N" for no results in the printing of textual abstracts and the corresponding crosstabulation table.

Next the user is asked how many retrievals he desires to make. The choice is usally a matter of user convencience, since the unit cost per retrieval is essentially the same whether the retrievals are requested singly or in multiples. For either type of retrieval, the program needs to know the date boundaries in which the user is interested:

DATE BOUNDARIES (YYMM,YYMM)...?

Two numerical entries are requested. For analytic retrievals, beginning and ending dates to be searched are entered in the form "yymm" (year-month), while for descriptive retrievals the program requires "yymmdd" (year-month-day) format. For example, a date boundary of January 15, 1972, through and including September 15, 1974 would be entered as "720115,740915". The dates may be separated with either a comma or a blank space. If either date is incorrectly entered, a diagnostic is given and the question is repeated.

At this stage the program is ready to accept instructions to be used in forming the basicsearch criteria to be used in a particular retrieval. As discussed in Section II, the New York Times event chronology consists of five basic variables: Time, Actor, Event, Target, and Arena. Retrievals require the construction of a two-dimensional table of event frequencies, where any one of the five variables constitutes a row variable, while any remaining variable may appear as a column variable. Beyond

this minimum two-variable requirement, it is possible to use one, two, or all three remaining variables as controls for the table. Controls may be specified in any order with equivalent results. The function of one or more control variables is to exclude from the table those events which do not satisfy the conditions for inclusion established by each row, column, and control variable specification.

The first specification required is the name of the variable to be used as a row variable:

ROW-VARIABLE ...?

Acceptable responses include "TIME", "ACTOR", "EVENT", "TARGET", and "ARENA".

Each variable consists of a set of all categories (cases) by which the variable may occur in the data. Appendix A contains the numeric codes for the more than 200 Actor and Target cases. Arena codes appear in Appendix C. Specification of TIME as a variable invokes a procedure by which daily events are grouped into calendar months, a procedure which results in more than 100 cases. With respect to TIME in months as a variable, the user desiring a lengthier retrieval time period may instead specify "YEAR", "SEMI", or "QTRS" for yearly, semi-annual, or quarterly time periods. If the variable name entered by the user is misspelled or unrecognizable, a list of the valid variables is typed out and the question is repeated.

Presented next is the following:

PARTITION (Y/N)...?

Partitioning is an option by which the user may organize the cases of the previously specified variable into more general subgroups within the variable. Partitioning always results in a smaller number of cases. In conjunction with the next two questions, the purpose of partitioning is to facilitate

the inclusion or exclusion of variable subgroups as search criteria. Valid responses are "Y" for yes if partitioning is desired, and "N" for no, if not.

In order to facilitate this regrouping of cases in an efficient manner, the program takes advantage of the fact that the WEIS codes (i.e., variable cases) themselves constitute a basis for hierarchical grouping of cases. For any three-digit WEIS code, the left-most digit represents the most general grouping, the middle digit may represent a more specific subgroup, while the right-most digit uniquely identifies a particular case. Since all WEIS codes are, of neccessity, available to the program for labeling purposes, it is convenient to use segments of case labels as a basis for grouping such cases as needed. As an extension of this concept, it is relatively simple to extend case labels to four characters or more where a greater choice of partitioning options is desired.

If partitioning is desired, the program requests information which controls the manner in which the case labels are partitioned:

POSITIONS (begin,end)...?

A case label is composed of from three to eight alphanumeric characters. If read from left to right, the first character would be position 1, the second character position 2, and so on. The program needs to know the starting and ending position of the portion of the case label to be used for regrouping. For example, suppose a user, who had just specified "TIME" as a variable was interested in grouping all events in the collection by the month in which they occurred (i.e., January, February, March, etc.) Case labels for "TIME" take the form "6601","6602", ..."yymm". His response would be "3,4", that is, "use the portion of the case label beginning in character position 3 and ending in character position 4 as the basis for regrouping cases within this variable."

Alternately, to group TIME into years, one would specify positions "1,2". To group ACTOR and TARGET into regions of the world one would specify "1,1" partitioning for those variables.

In the development of the PULSE system, the most useful partition was the grouping of 63 event cases into seven event groups. This required the addition of characters to the right of individual event codes, an exception to the general rule that leftmost characters correspond to the most general groups. A user desiring to inspect events grouped in this manner should specify "4,4" partitioning for the EVENT variable.

Next the program types:

S/D/A variable ...?

"Variable" is the actual name of the variable currently being specified. Responses are "S", for select cases or subgroups within the current variable for use as inclusion criteria; "D", delete cases or subgroups from the variable, such that only cases remaining will be used as inclusion criteria; and "A", include all cases or subgroups in the search.

If the user wishes to "S"elect or "D"elete cases, the program will ask

HOW MANY CASES...?

The cases to be selected or deleted may then be entered on one or more lines, where each entry is separated by a single blank from every other entry:

TYPE EACH CASE SEPARATED WITH A BLANK?

If the user enters an invalid case name, the program will type a diagnostic and ask the user to retype it.

At this point the program repeats the specification procedure for the column variable. When a column variable has been satisfactorily specified, the program types:

TYPING 'RUN' INSTEAD OF A VARIABLE NAME ENDS CONTROLS
CTL1 VARIABLE ...?

The user may type "RUN" at this point, or he may specify up to three additional variables as control variables. Specification of control variables is exactly the same as for row and column variables. When all variables have been specified, the program will ask the user for a title for the run. The title and the user's G.E. user number will appear in the printout as a means of identifying the run and the source of the retrieval request.

If more than one retrieval has been specified, the program informs the user that it is ready for the second set of retrieval instructions and continues on to the "Date Boundaries" request. Otherwise the interactive sequence is complete. At this point, the entire set of instructions for retrieval is passed to the G.E. "background" system. A job identification number ("job ID") is printed at the user's terminal, and the user is returned to the PULSE "ENTER OPTION". The user should make a note of his job ID, inasmuch as the job ID number is the only means by which he will be able to inquire about the status of the retrieval or obtain output. Typical background waiting times range from ten minutes to an hour or more, depending on how busy the G.E. background system is. Unless the user wishes to exercise additional PULSE options, while waiting, it is advisable to log off the G.E. system at this point rather than to incur connect time charges.

Table 9 contains an example of a request for a descriptive retrieval. In Table 9, the USA and Japan are selected as actors and targets for retrieval. The scope of the retrieval is limited to the month of September, 1971, since for purposes of illustration, the peak in the smoothed time series curve from Option 4, Table 8, is being investigated.

TABLE 9

Sample Descriptive/Analytic Retrieval Request

(Option 5)

SOURCE ...?N (CR) ---"N" specifies New York Times

RETRIEVAL TYPE (A/D)...?D (CR) ---"D" means descriptive retr.

SUPPRESS ANALYTIC OUTPUT (Y/N)...?Y (CR)

HOW MANY RETRIEVALS...?1 (CR)

READY FOR RETRIEVAL 1

SPAN OF THIS COLLECTION IS 660101 THRU 741231 --- Data range.
TE BOUNDARIES (YYMMDD,YYMMDD)...?710901 710930 (CR)

ROW VARIABLE ...?ACTOR (CR) --- Row variable is "ACTOR"

PARTITION (Y/N)...?Y (CR) --- Use existing case labels.

S/D/A ACTOR ...?S (CR) --- Select Actors from Appendix A.

HOW MANY CASES...?2 (CR) --- 2 Actors to be selected.

TYPE EACH CASE SEPARATED WITH A BLANK.
?002 740 (CR) --- U.S., Japan codes.

TABLE 9 (cont.)

COL- VARIABLE ...?TARGET (CR) --- Column variable is "TARGET"

PARTITION (Y/N)...?N (CR) --- Use existing case labels.

S/D/A TARGET ...?S (CR) --- Select Targets from Appendix A.

HOW MANY CASES...?2 (CR) --- 2 Targets to be selected.

TYPE EACH CASE SEPARATED WITH A BLANK.
?002 740 (CR) --- U.S., Japan codes.

TYPING 'RUN' INSTEAD OF A VARIABLE NAME ENDS CONTROLS
CTL VARIABLE ...?RUN (CR) --- No control variables. Continue processing.

SIZE OF BASIC TABLE WILL BE 2 ROWS BY 2 COLUMNS
TITLE...?SAMPLE DESCRIPTIVE RETRIEVAL-- USA-JAPAN, 9/71. (CR) ---User types title

JOB ID = HLB3 --- Foreground segment complete. Background segment initiated. Job ID for this run, HLB3, should be noted.

PLEASE MAKE A NOTE OF YOUR JOB ID.
USE PULSE OPTION 7 TO CHECK FOR OUTPUT
ASSOCIATED WITH THIS ID.

ENTER OPTION (1-7), 0 FOR LIST, 99 TO STOP...?99 (CR) ---No further PULSE requests. Exit.

USED 5.23 UNITS --- Computer Resources expended in foreground segment.
BST HLB3 (CR) --- User issues "BSTATUS" command to check background job.
HLB3 AWAITING OFF-LINE FILE RETRIEVAL AT 11:40PST IN ACTIVITY 01 ---waiting for mag. tape.
00000 RETURNED
00009 SUBMITTED

Table 10 presents the descriptive and analytic output associated with this run. With the detail provided in Table 10, the negative component of US-Japanese Involvement may be assessed in more detail.

Option 6. Option 6 provides the capability to construct a file containing one or more country-pairs of particular interest to the user, but not otherwise contained in CACI's Dyadic Data File. Option 6 is similar to Option 5 in that it generates requests for analytic retrievals, but because the specifications for retrievals used to construct pair wise data are known, Option 6 provides a highly automatic way of generating these retrievals. For each dyad of interest to the user, two retrieval requests are generated: (1) time by event groups, with country A as actor and country B as target; (2) time by event groups with B as actor and A as target. The requests are processed in background and return to foreground as standard analytic retrievals. In Option 7, the user can cause the data in these tables to be transferred to a random binary file which is compatible in all respects with PULSE requirements. The user may then enter the name of his new Custom Data File for computing under Options 2, 3, and 4.

He may enlarge the file at any time by repeating the process. The sequence of questions posed by Option 6 is straightforward:

```
PRIORITY (1=EXPRESS; 2=NORMAL)
RETRIEVALS FOR HOW MANY COUNTRY-PAIRS...?
WHICH PAIRS (SEPARATE EACH ENTRY WITH A BLANK)...?
```

Priority refers to the priority with which the user's retrieval requests will be prepared for background. "1" results in immediate processing, while "2" permits the job to be run with a 30-minute delay. Savings of approximately 40 percent can be realized under normal priority.

TABLE 10.
Sample Descriptive/Analytic Retrieval Output
(Option 7)

```
ILB3        01/28/75

     SNUMB = MILB3, ACTIVITY # = 01, REPORT CODE = 12, RECORD COUNT = 00115

          * * * P U L S E   D E S C R I P T I V E   R E T R I E V A L * * *

REQ'D BY--CACI      01/28/75     11.65
FROM 710901 THRU 710930, WITH ACTOR     TARGET    RUN


TITLE-- SAMPLE DESCRIPTIVE RETRIEVAL-- USA-JAPAN, 9/71.


     710902
       JAP REQUESTS USA ASSISTANCE IN WORKING OUT AN AGREEMENT ON
       THE TEXTILE EXPORT ISSUE TO REPLACE THE PRESENT VOLUNTARY
       PROGRAM

     710906
       JAP WILL SUPPORT A USA RESOLUTION DECLARING THE OUSTER OF
       CHT FROM THE UN AS IMPORTANT QUESTION REQUIRING A TWO-THIRDS
       MAJORITY VOTE FOR ADOPTION IN THE GENERAL ASSEMBLY

     710909
       JAP TELLS USA THAT FOR DOMESTIC POLITICAL REASONS, JAP MIGHT
       FIND IT IMPOSSIBLE TO CO-SPONSOR USA RESOLUTIONS DESIGNED TO
       PREVENT EXCLUSION OF CHT FROM THE UNO WHILE SEATING CHN

     710909
       USA CALLS ON JAP FOR A MAJOR UPWARD REVALUATION OF THE YEN,
       NEEDED TO SOLVE USA AND WORLD ECONOMIC PROBLEMS

     710909
       JAP FM FUKUDA SUGGESTS TO USA THAT CHRONIC DEFICIT IN USA
       BALANCE OF INTERNATIONAL PAYMENTS COULD BE OVERCOME BY
       DOMESTIC MEASURES

     710910
       JAP FM FUKUDA TURNS DOWN USA PROPOSAL THAT JAP CO-SPONSOR
       RESOLUTIONS AIMED AT KEEPING CHT IN THE UNO WHILE ADMITTING
       CHN

     710910
       JAP PROPOSES TO USA TO LIFT QUOTA RESTRICTIONS ON 8 OR 9 USA
       EXPORTS INCLUDING COMPUTER EQUIPMENT, LIGHT AIRCRAFT, FUEL
       OIL, AND SOME AGRICULTURAL PRODUCTS

     710910
       USA TURNS DOWN JAP PROPOSAL TO LIFT QUOTA RESTRICTIONS ON 8 OR
```

4LB3 01/28/75

9 EXPORTS INCLUDING COMPUTER EQUIPMENT, LIGHT AIRCRAFT, FUEL OIL, AND SOME AGRICULTURAL PRODUCTS

710914
JAP-CAN JOINT COMMUNIQUE CALLS ON USA FOR "EARLY REMOVAL" OF USA 10% IMPORT SURTAX

710920
USA PRESS SEC ZIEGLER DENIES JAP REPORTS THAT PRS NIXON WILL FLY DIRECTLY FROM ANCHORAGE TO CHN

710924
USA ASKS JAP TO STATE BY THE END OF SEPTEMBER WHETHER JAP WILL ACCEPT A GOVERNMENT-LEVEL AGREEMENT RESTRAINING JAP TEXTILE EXPORTS TO USA MARKETS

710927
JAP EMPEROR HIROHITO MEETS WITH USA PRS NIXON

710927
USA PRS NIXON MEETS WITH JAP EMPEROR HIROHITO

710927
JAP EMPEROR HIROHITO EXPRESSES APPRECIATION TO USA PRS NIXON FOR FLYING TO ANCHORAGE TO MEET HIM AND TO USA PEOPLE FOR THEIR HELP TO JAP SINCE 1945

710930
USA THREATENS TO IMPOSE IMPORT QUOTAS ON JAP TEXTILES UNLESS A PLAN FOR SETTLEMENT OF THE LONG-STANDING DISPUTE IS ACCEPTED

710930
JAP REJECTS USA DEMAND THAT JAP REPLY TO USA PLAN TO IMPOSE IMPORT QUOTAS ON JAP TEXTILES BY TOMORROW

710930
JAP MIN OF INTERNATIONAL TRADE AND INDUSTRY TANAKA ASKS USA FOR INFORMATION ON WHETHER USA IS PLANNING TO EXEMPT JAP FROM 10% IMPORT SURTAX ON TEXTILES IF A GOVERNMENTAL TEXTILE PACT IS CONCLUDED BETWEEN USA AND JAP

PULSE ANALYTIC RETRIEVAL

REQ'D BY--CACI 01/28/75 11.65
FROM 710901 THRU 710930, WITH ACTOR TARGET RUN
IN THIS RUN, 17 EVENTS WERE USED OUT OF 494 READ.

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TABLE 10 (cont.)

ILB3 01/28/75

TITLE-- SAMPLE DESCRIPTIVE RETRIEVAL-- USA-JAPAN, 9/11.

	TARGET > 002	740	TOTALS
ACTOR			
002	0.	6.	6.
740	11.	0.	11.
TOTALS	11.	6.	17.
MEAN	5.5	3.0	8.5

RETRIEVAL 1 COMPLETED.

Next, the user is asked to specify the number of country pairs to be included in his Custom Data File. Up to 50 pairs (100 countries) may be requested at a time.

At this point, the program expects the user to enter the numerical codes for each member of each pair, chosen from Appendix A. Codes may be entered several to a line, but each code must be separated from other codes with a single blank. Commas are not acceptable as delimiters. The entries should follow the form, "A_1 B_1 A_2 B_2 A_3 B_3 ...A_n B_n", where the first member of each pair will be treated as "A" and the second as "B" in future references to this pair under Options 2, 3, and 4.

In addition to the country codes listed in Appendix A, the program will also accept the following codes for selected country groups: "WORLD", consisting of all countries; "OPEC", consisting of members of the Organization of Petroleum Exporting Countries; "ARABS", consisting of Middle Eastern Arab states; "ENA", consisting of North Atlantic and Western European countries; and "WGB", which groups West Germany and West Berlin as a single code. A country pair may be formed as a combination of any two numerical codes or special designations. For example, a pair consisting of Japan and all OPEC countries would be specified as "740 OPEC". Interactions between OPEC countries and North Atlantic-Western European countries would be referenced as "OPEC ENA", and so forth. If all codes cannot be entered on a single line, the user should type a carriage return at the end of the current line, wait for a question mark, and continue typing on a new line. When the required number of codes has been typed, the program informs the user of any invalid entries and affords him the opportunity to correct them. The program next proceeds to generate instructions for the required number of analytic retrievals. It then causes Option 5 to process these instructions automatically, with no further action required of the user.

In the process, two scratch files are created by the program in the user's catalog: the first file contains retrieval parameters

which will be passed automatically to Option 5. The second file contains the results of the Option 5 run generated by this option. The names of both files are printed at the terminal when the setup procedure is complete. The latter of these two files will contain the results of the Option 5 run as soon as it is completed. If the user has specified "normal priority", at least 30 minutes must elapse before Option 5 can be run. Under "express priority", the Option 5 run begins as soon as G.E. MARK III resources can be allocated for this purpose, usually within one to five minutes. The latter file will be empty until this run is complete. When Option 5 has run, the user may inspect the latter scratch file to the extent desired. At minimum, the user should obtain the background Job ID occurring near the end of this file. This Job ID should be saved for use as input to Option 7, which will complete the construction of the user's Custom Data File. When the user has made a record of his background Job ID, both scratch files should be purged to avoid further storage charges.

Option 7. Option 7 is designed to manage output generated by Option 5 and Option 6 retrieval requests. Its conversational sequence is:

RETRIEVAL HANDLER...TYPE IN YOUR JOB ID...?

The user responds with his four character job identification. If he has forgotten his Job ID, a response of "ALL" will cause the G.E. System to type out the status(es) of all pending and completed background jobs for his user number. The appropriate Job ID may then be entered at that point. If the job is complete, the output is moved from the batch output library into the user's foreground user number. The foreground file containing the output will have the same identification as the background Job ID. If the job does not exist or is incomplete, a diagnostic is printed and the program terminates.

Once the output is in foreground, the program types

OUTPUT OPTION ('LIST', 'CDF', 'PURGE', 'STOP', 'NEXT')...?

The response "LIST" causes the output to be listed, with pagination, at the user's terminal. The first line of output to be typed contains the number of records (i.e., lines) of output to be printed. If the line count is substantial, the user may elect to terminate the typeout with the break key and use the G.E. Remote Media Services capability to transfer his output to a high speed printer or card punch.

If the response is "CDF", the program types:

HOW MANY DYADS IN FILE xxx...?

The user responds with the number of pairs (not separate retrievals) in his output file. The program then requests the name of the user's Custom Data File:

CUSTOM DATA FILE NAME...?

If the file exists, it is enlarged to accomodate the additional country pairs. If not, a random binary file with the name specified is created in the user's catalog. The data is compressed and formatted in a manner which PULSE Options 2,3, and 4 will recognize, and the program returns to the "Output Option" stage. If difficulties are encountered in reading the input file, a diagnostic is printed and the program repeats the "Output Option" query.

A response of "PURGE" removes the output file from foregrcund and eliminates the background components of the retrieval as well. It is recommended that the user "PURGE" his output after "LIST"ing it, or after completing the construction of a Custom Data File with the "CDF" output option.

A response of "STOP" indicates that the user has no further requests of Option 7. The program returns to the PULSE "ENTER OPTION" level. If the user has more than one background job to inspect, he may type "NEXT" to restart Option 7. "NEXT" causes the program to ask for a new background Job ID.

APPENDIX A. INTERNATIONAL ACTOR/TARGET CODE LIST

CODE	ENTITY	ABBR.	CODE	ENTITY	ABBR.
Independent Countries					
700	Afghanistan	AFG	780	Ceylon (now Sri Lanka)	SRI
339	Albania	ALB			
615	Algeria	ALG	483	Chad	CHA
232	Andorra	AND	155	Chile	CHL
555	Angola	ANG	710	China, People's Republic of	CHN
160	Argentina	ARG			
900	Australia	AUL	713	China, Republic of	CHT
305	Austria	AUS	100	Columbia	COL
695	Bahrain	BAH	484	Congo (Brassaville)	COP
765	Baugladesh	BGD			
053	Barbados	BAR	490	Congo (Kinshasa) (now Zaire)	ZAI*
211	Belgium	BEL			
266	Berlin/East	EBE	094	Costa Rica	COS
267	Berlin/West	WBE	040	Cuba	CUB
760	Bhutan	BHU	352	Cyprus	CYP
145	Bolivia	BOL	315	Czechoslovakia	CZE
571	Botswana	BOT	434	Dahomey	DAH
140	Brazil	BRA	390	Denmark	DEN
355	Bulgaria	BUL	042	Dominican Rep.	DOM
775	Burma	BUR	130	Ecuador	ECU
516	Burundi	BUI	651	Egypt	EGY*
811	Cambodia	CAM	092	El Salvador	ELS
471	Cameroun	CAO	440	Equitorial Guinea (includes Fernando Po)	GUE
020	Canada	CAN			
482	Central African Republic	CEN	530	Ethiopia	ETH
			375	Finland	FIN

*Until 1975, the alpha codes were CEY for Sri Lanka (previously Ceylon), CON for Zaire (previously Congo (Kinshasa)), and UAR for Egypt.

APPENDIX A. (cont.)

CODE	ENTITY	ABBR.
220	France	FRN
980	Fiji	FIJ
481	Gabon	GAB
420	Gambia	GAM
265	Germany/Dem. Rep.	GME
255	Germany/Fed. Rep.	GMW
452	Ghana	GHA
350	Greece	GRC
044	Greneda	GRE
090	Guatemala	GUA
438	Guinea	GUI
445	Guinea-Bissau	GBI*
110	Guyana	GUY
041	Haiti	HAI
091	Honduras	HON
310	Hungary	HUN
395	Iceland	ICE
750	India	IND
850	Indonesia	INS
630	Iran	IRN
645	Iraq	IRQ
205	Ireland	IRE
666	Israel	ISR
325	Italy	ITA
437	Ivory Coast	IVO
051	Jamaica	JAM
740	Japan	JAP
663	Jordan	JOR
501	Kenya	KEN
731	Korea/North	KON
732	Korea/South	KOS
690	Kuwait	KUW
812	Laos	LAO
660	Lebanon	LEB
570	Lesotho	LES
450	Liberia	LIB
620	Libya	LBY
223	Liechtenstein	LIC
212	Luxemburg	LUX
580	Malagasy	MAG
553	Malawi	MAW
820	Malaysia	MAL
782	Maldive	MAD
432	Mali	MLI
338	Malta	MLT
590	Mauritius	MAR
435	Mauritania	MAU
070	Mexico	MEX
221	Monaco	MOC
712	Mongolia	MON
600	Morocco	MOR
557	Mozambique	MOZ
698	Muscat and Oman	MOM
921	Nauru	NAU
790	Nepal	NEP
210	Netherlands	NTH
920	New Zealand	NEW
093	Nicaragua	NIC
436	Niger	NIR
475	Nigeria	NIG
385	Norway	NOR
770	Pakistan	PAK
095	Panama	PAN

*Until 1974, when Portuguese Guinea became independent, PGU was the alpha code for Guinea-Bissau.

APPENDIX A. (cont.)

CODE	ENTITY	ABBR.
913	Papua New Guinea	PNG
150	Paraguay	PAR
135	Peru	PER
840	Philippines	PHI
290	Poland	POL
235	Portugal	POR
696	Qatar	QAT
552	Rhodesia	RHO
360	Rumania	RUM
517	Rwanda	RWA
331	San Marino	SAN
670	Saudi Arabia	SAU
433	Senegal	SEN
451	Sierra Leone	SIE
830	Singapore	SIN
520	Somalia	SOM
560	South Africa	SAF
681	South Yemen	SYE
230	Spain	SPN
625	Sudan	SUD
572	Swaziland	SWA
380	Sweden	SWD
225	Switzerland	SWZ
652	Syria	SYR
510	Tanzania	TAZ
800	Thailand	TAI
461	Togo	TOG
052	Trinidad-Tobago	TRI
616	Tunisia	TUN
640	Turkey	TUR
500	Uganda	UGA
365	USSR	USR
675	United Arab Emirates	UAE
200	United Kingdom	UNK
002	USA	USA
439	Upper Volta	UPP
165	Uruguay	URU
328	Vatican	VAT
101	Venezuela	VEN
816	Vietnam/North	VTN
817	Vietnam/South	VTS
990	Western Samoa	WSM
678	Yemen	YEM
345	Yugoslavia	YUG
551	Zambia	ZAM

Colonies or Protectorates

035	Bahamas (Br.)	BAS
030	Bermuda (Br.)	BER
085	British Honduras	BHO
115	French Guiana	FGU
720	Hong Kong (Br.)	HOK
721	Macao (Port.)	MAC
556	Southwest Africa	SAW
430	Spanish Sahara	SPS
996	All other Colonies/ Protectorates	

APPENDIX A. (cont.)

CODE	ENTITY	ABBR.
	International Organizations or Multilateral Groups of Nations	
198	Alliance for Progress	AFP
199	Organization of American States	OAS
206	Irish Republican Army	IRA
394	Warsaw Pact	WAR
396	North Atlantic Treaty Organization (NATO)	NAT
397	European Economic Community (EEC)	EEC
398	European Free Trade Association	EFT
399	United Nations (only)	UNO
599	Organization for African Unity	OAU
649	Kurds	KUR
697	Palestine Liberation Organization	PLO
699	Arab League	APL
818	Vietcong	VCG
890	Provisional, recognized alternative governments (e.g., Prince Sihanouk's government-in-exile) or deposed rulers, when new government not yet recognized (e.g., Archbishop Makarios).	
985	World Bank (IBRD, IDA)	WBK
986	International Monetary Fund (IMF)	IMF
991	International terrorist groups	TER
992	Southeast Asia Treaty Organization (SEATO)	SEA
993	International Red Cross	IRC
997	All other international organizations	INT
998	Any other multilateral group	MLG
999	Not stated, unidentified target	NSC

APPENDIX B. EVENT CODES

1. YIELD

011 Surrender, yield to order, submit to arrest

012 Yield position; retreat; evacuate

013 Admit wrongdoing; retract statement

2. COMMENT

021 Explicit decline to comment

023 Comment on situation-neutral, hope, express concern

025 Explain policy or future position

3. CONSULT

031 Meet with; at neutral site; or send note; stay in same place

032 Visit; go to; leave country

033 Receive visit; host

4. APPROVE

041 Praise, hail, applaud, condolences, ceremonial greetings, thanks

042 Endorse other policy or position, give verbal support

5. PROMISE

051 Promise own policy support

052 Promise material support

053 Promise other future support action

054 Assure; reassure

6. GRANT

061 Express regret; apologize

062 Give state invitation

063 Grant Asylum

064 Grant privilege, diplomatic recognition de facto relations, etc.

065 Suspend negative sanctions; truce

066 Release and/or return persons or property

7. REWARD

071 Extend economic aid (gift and/or loan)

072 Extend military assistance; joint military exercises

073 Give other assistance

8. AGREE

081 Make substantive agreement

082 Agree to future action or procedure; agree to meet, to negotiate, accept state invitation

9. REQUEST

091 Ask for information

092 Ask for policy assistance; seek

093 Ask for material assistance

094 Request action; call for; ask for asylum

095 Entreat; plead for; appeal to; help

10. PROPOSE
101 Offer proposal
102 Urge or suggest policy or action

11. REJECT
111 Turn down proposal; reject protest, demand, threat, etc.
112 Refuse; oppose; refuse to allow; exclude; fail to reach agreement

12. ACCUSE
121 Charge; criticize; blame; disapprove

13. PROTEST
131 Make complaint (not formal)
132 Make formal complaint or protest

14. DENY
141 Deny an accusation, attributed policy, action, role, or position

15. DEMAND
150 Issue order or command, insist; demand compliance, etc.

16. WARN
160 Give warning

17. THREATEN
171 Threat without specific negative sanctions
172 Threat with specific non-military negative sanctions
173 Threat with force specified
174 Ultimatum; threat with negative sanctions and time limit specified

18. DEMONSTRATE
181 Non-military demonstration; walk out on; boycott
182 Armed force mobilization, exercise, and/or display, blockade

19. REDUCE RELATIONSHIP (As Neg. Sanction)
191 Cancel or postpone planned event
192 Reduce routine international activity; recall officials, etc.
193 Reduce or suspend aid or assistance
194 Halt negotiations
195 Break diplomatic relations

20. EXPEL
201 Order personnel out of country; deport
202 Expel organization or group

21. SEIZE
211 Seize position or possessions
212 Detain or arrest person(s)

22. FORCE
221 Non-military destructive act
222 Military injury-destruction, bomb
223 Military engagement

APPENDIX C. ARENA CODES

010 Arab-Israel Interaction/General Conflict

013 1967 Mideast War (All Mideast events during 1967, focusing on June war)

020 Vietnam Conflict (general, policy statements)

025 Paris Peace Talks (anything said at the talks, or concerning the talks)

027 Vietnam military engagements (physical hostilities starting in October 1969)

030 Rhodesian Independence

040 Berlin Conflict

050 Sino-Soviet Conflict

060 Indonesia-Malaysia Disputes

070 India-China Conflicts

080 USA-China Conflicts

090 India-Pakistan Disputes

100 Cyprus Independence

110 North Korea - South Korea Interactions

120 France - NATO Disputes

130 West German - East Europe Disputes

140 Yemeni Conflicts (South Yemen vs. Yemen Republic)

150 Dominican Republic - USA Conflict

160 Chinese Red Guard Activities

170 Czechoslovakia - Soviet Union Disputes

180 Biafra - Nigeria Conflict

190 Strategic Arms Limitation Talks (SALT)

200 Non-Government Sanctioned Violence (events with non-official actors and/or targets)

210 Cambodian Conflict

220 International Terrorism (as a subject of communication)

230 Northern Ireland Conflict (no internal Northern Ireland actions)

240 Kurd - Iraq Conflict

300 Monetary, Balance of Payments

APPENDIX C. (cont.)

310 Multinational Corporations, Private Investments

320 Government Aid

330 Trade, tariffs

340 Resources

350 Other Economics

APPENDIX D. DYADIC DATA FILE COUNTRY PAIRS

US-World	001	US-UK	033
USSR-World	002	US-Europe, North Atlantic	034
Rumania-World	003	US-Canada	035
Czechoslovakia-World	004	US-West Germany/W. Berlin	036
Yugoslavia-World	005	US-Turkey	037
CPR-World	006	US-Greece	038
North Vietnam-World	007	US-Laos	039
North Korea-World	008	US-South Vietnam	040
Cuba-World	009	US-Other South East Asia	041
France-World	010	US-Japan	042
Laos-World	011	US-Pakistan	043
South Vietnam-World	012	US-India	044
Japan-World	013	US-Iran	045
Pakistan-World	014	US-Israel	046
India-World	015	US-Arabs	047
Aul.,New Zeal.-World	016	US-UAR	048
Iran-World	017	US-North Africa	049
Israel-World	018	US-White Colonia Africa	050
Arabs-World	019	US-Other Sub Saharan Afr.	051
UAR-World	020	USSR-Rumania	052
UK-World	021	USSR-Czechoslovakia	053
US-USSR	022	USSR-Other East Europe	054
US-Rumania	023	USSR-Yugloslavia	055
US-Czechoslovakia	024	USSR-CPR	056
US-Other East Europe	025	USSR-North Vietnam	057
US-Yugoslavia	026	USSR-North Korea	058
US-CPR	027	USSR-Cuba	059
US-North Vietnam	028	USSR-France	060
US-Cuba	030	USSR-UK	061
US-South America	031	USSR-Europe, N.Atlantic	062
US-France	032	USSR-South Vietnam	064

APPENDIX D. (cont.)

USSR-Japan	065	UK-W.Germany	100
USSR-Pakistan	066	Greece-Turkey	101
USSR-India	067	Laos-N.Vietnam	102
USSR-Iran	068	Laos-S. Vietnam	103
USSR-Israel	069	S.Vietnam-Cambodia	104
USSR-Arabs	070	Pakistan-India	105
USSR-UAR	071	Israel-Arabs	106
USSR-N.Africa	072	Arabs-Other S.S. Africa	107
USSR-Other S.S. Africa	073	UAR-Israel	108
USSR-Turkey	074	N.Africa-Israel	109
USSR-W. Germany	075	Wh.Col.Africa-Other SS Afr.	110
USSR-Canada	076	Tot E Europe-Eur.N.Atlantic	111
CPR-Rumania	077	Tot E Europe-W. Germany	112
CPR-Other E.Europe	078	Albania-World	113
CPR-N. Vietnam	079	Warsaw-NATO	114
CPR-Taiwan	080	S.S. Africa-World	115
CPR-UK	081	US-Tot E. Europe	116
CPR-Other SS Africa	082	US-Tot SE Asia	117
CPR-North Korea	083	USSR-Tot E. Europe	118
CPR-Laos	084	USSR-Tot SE Asia	119
CPR-S.Vietnam	085	N.Vietnam-Tot SE Asia	120
CPR-Japan	086	US-Argentina	121
CPR-Pakistan	087	US-Brazil	122
CPR-India	088	US-Peru	123
Rumania-Other E. Eur.	089	US-Mexico	124
Czech-Other E. Eur.	090	US-Sweden	125
N.Vietnam-S.Vietnam	091	US-E.Germ/E.Berlin	126
N.Vietnam-Other SE Asia	092	US-Italy	127
N.Korea-S.Korea	093	US-Spain	128
Cuba-S. America	094	US-Algeria	129
Cuba-Mexico, etc	095	US-Jordan	130
France-UK	096	US-Indonesia	131
France-Israel	097	US-Taiwan	132
France-W. Germany	098	US-Philippines	133
UK-White Col Africa	099	US-Thailand	134

US-Cambodia	135
US-S.Korea	136
US-Australia	137
USSR-Finland	138
USSR-E.Germ/E.Ber.	139
USSR-Italy	140
USSR-Albania	141
W.Ger/W.Ber-Czech	142
W.Ger/W.Ber-Poland	143
W.Germany/W.Berlin-E.Germany/E.Berlin	144
UK-Rhodesia	145
UK-Israel	146
UAR-Syria	147
UAR-Jordan	148
Lebanon-Israel	149
Syria-Israel	150
Jordan-Israel	151
CPR-Albania	152
CPR-Indonesia	153
Philippines-Malaysia	154
Malaysia-Indonesia	155
World-World	156
Tot E Eur-Tot E Eur	157
S.America-S.America	158
S.E. Asia-S.E. Asia	159
Arabs-Arabs	160
N.Africa-N.Africa	161
Oth SS Afr.-Oth SS Afr	162
Warsaw-Warsaw	163
US-World*	164
N.Vietnam-World*	165
S.Vietnam-World*	166
US-N.Vietnam*	167
N.Vietnam-S.Vietnam*	168
N.Vietnam-Oth SE Asia*	169
N.Vietnam-Tot SE Asia*	170
US-Japan Political	171
US-Japan Military	172
US-Japan Economic	173
USSR-CPR Political	174
USSR-CPR Military	175
USSR-CPR Economic	176
Ind-Pak Political	177
Ind-Pak Military	178
Ind-Pak Economic	179
USSR-Czech Political	180
USSR-Czech Military	181
USSR-Czech Economic	182
CPR-Japan Political	183
CPR-Japan Military	184
CPR-Japan Economic	185
USSR-Japan Political	186
USSR-Japan Military	187
USSR-Japan Economic	188
US -CPR Political	189
US -CPR Military	190
US -CPR Economic	191
US -USSR Political	192
US -USSR Military	193
US -USSR Economic	194
US -OPEC	195

*Includes North Vietnamese events in Groups 1 and 7 coded since September, 1969.

APPENDIX E. RELATIONSHIP BETWEEN WEIS EVENT CATEGORIES AND AGGREGATED GROUPS

Aggregated Groups	WEIS Code	WEIS Event Categories
1. Military Incidents	223	military engagement
2. Coercion	150	issue order, insist on compliance
	160	give warning
	171	threat without specific negative sanctions
	172	threat with specific non-military negative sanctions
	173	threat with force specified
	174	ultimatum, time limit specified
	182	military mobilization, exercise, or display
	195	break diplomatic relations
	201	order personnel out of country
	202	expel organization or group
	212	detain or arrest persons
3. Pressure	111	turn down proposal, reject protest, etc.
	112	refuse, oppose, refuse to allow
	121	charge, criticize, blame
	122	denounce, denigrate, abuse
	131	informal complaint
	132	formal complaint or protest
	141	deny an accusation
	142	deny an attributed policy, action, or position
	191	cancel or postpone planned event
	192	reduce routine international activity
	193	reduce or halt aid
	194	halt negotiations
4. Communication/ Consultation	025	explain policy or future position
	031	meet at neutral site, send note
	032	visit, go to
	033	receive visit, host
	062	give state invitation
	091	ask for information
	094	request action, call for
	101	offer proposal
	102	urge or suggest action or policy

APPENDIX E. (cont.)

5. Support/Agreement	041	praise, hail
	042	endorse other policy or position
	051	promise own policy support
	052	promise material support
	053	promise other future support
	054	assure, reassure
	064	grant privilege, diplomatic recognition, etc.
	071	extend economic aid
	072	extend military aid
	073	extend other assistance
	081	make substantive agreement
	082	agree to future action or procedure
6. Reconciliation	013	admit wrongdoing, retract statement
	061	express regret, apologize
	065	suspend negative sanctions, truce
	066	release or return persons or property
7. Military Disengagement	011	surrender, yield to order
	012	yield position, retreat, evacuate
8. Excluded WEIS Categories	021	explicit decline to comment
	022	comment on situation-pessimistic
	023	comment on situation-neutral
	024	comment on situation-optimistic
	063	grant asylum
	092	ask for policy assistance
	093	ask for material assistance
	095	entreat, plead for, appeal to, help
	181	non-military demonstration, walk-out on
	211	seize position or possessions
	221	non-injury destructive act
	222	non-military injury-destruction

APPENDIX F. INTERACTION WITH THE G.E. SYSTEM

In order to use the PULSE System, the user must have access to a communications terminal suitable for use in a timesharing environment, such as a Teletype, Datanet, Terminet, CRT, or equivalent. The user should then request his local General Electric Information Services representative to assign him a user number in the catalog reserved for CACI's PULSE System. The user should expressly request that his number be validated for background use and remote Media Services. In addition, the user may wish to request validation for "project ID", as an aid to accounting where use of the number by more than one individual within his organization is anticipated. The G.E. minimum charge associated with this type of number is typically on the order of one dollar ($1.00) per month. There is no CACI minimum use requirement. The user may begin using the PULSE system directly. All costs to the user are a function of use, and will be billed directly by G.E. or its authorized distributor.

The following information may be useful to frequent users of PULSE Option 5. Option 5 differs substantially from other PULSE options inasmuch as it consists of two programs. The first program executes in an interactive mode in Foreground and requests the information it needs directly from the user. This program is entered when the user specifies Option 5 in response to the "ENTER OPTION" query. When the user request phase is complete, a job is spawned to the Background System, containing internal data developed in Foreground. This job is assigned a four character identification (JOB ID) which is printed at the terminal.

The user need not remain connected to the G.E. system beyond this point. The Background job examines the information passed from Foreground and requests mounting of appropriate magnetic

tapes. It reads the tapes, constructs the output file, and terminates. While the job actually takes very little time to run, it may have to wait for indefinite intervals before the Background System is ready for it.

To determine the status of the Background portion of the retrieval process, the user enters:

BSTATUS JOBID OR BST JOBID

where JOBID is the job identification number for a particular background job. It can be expected that a run may have any of the following statuses:

WAITING
TRANSMITTED
AWAITING OFF-LINE FILE RETRIEVAL
AWAITING ALLOCATION
AWAITING CORE
EXECUTING
TERMINATING
DONE

When a job is "DONE" the output may be examined as any other Background job by using the "BEDIT" command (Refer to the G.E. "Foreground-Background Interface Manual"). PULSE retrievals have an activity code (AC) of "01" and a report code (RC) of "12". This report may be inspected directly, if desired, in lieu of calling up PULSE Option 7.

The user who is not familiar with the "BEDIT" commands, or the user who desires high speed listings, cards, or the creation of a CDF file, should rely instead on PULSE Option 7 as described above.

FACTOR MATRICES OF JAPANESE ISSUE AREA AND INTERNATIONAL DYADIC INTERACTION

The following varimax rotated factor matrices refer to Table 1 in Chapter 5 (Issue Area and Dyadic Dimensions of Japanese International Behavior). Each matrix represents a different subsample of international events controlling for directed dyadic interaction and/or issue area content. Seven unweighted behavioral variables for 135 one-week observations were entered in each factor analysis, except if the sum of a variable over all observations equaled zero. Squared multiple correlations were placed in the diagonals. Factor loadings in the following tables were multiplied by 100, and loadings of 50 and above were underlined.

Most of matrices presented here indicate that only a few behavioral variables in each factor analysis have fairly high communalities. In other words, the percentage of total variance accounted for by the combination of all common factors is low. This is further amplified by H^2, which indicates the degree to which the variables can be empirically patterened. In almost all cases, H^2 varies between 30 and 40 percent. Although these results suggest that the variables for each dyad and/or issue are not highly patterned, those variables whose variance is accounted for by the factor solutions provide an indication of the most prominent behavior in each context.

Japan to World - All (Cell 1A)

	I	II	III	h^2
Yield	-12	36	-10	.16
Give	21	44	-05	.25
Support	74	10	-03	.57
Communicate	85	15	-07	.77
Protest	46	-05	-09	.22
Threaten	04	22	12	.07
Coerce	-12	-03	51	.29
% Total Variance	22.8	6.0	4.6	33.3

Japan to World - Pol/Mil Security (Cell 2A)

	I	II	h^2
Yield	-10	41	.19
Give	03	21	.05
Support	46	-02	.21
Communicate	89	02	.79
Protest	43	27	.27
Threaten	22	69	.53
% Total Variance	21.0	12.9	34.0

Japan to World - Diplomatic Relations (Cell 3A)

	I	II	III	h^2
Yield	-11	23	-04	.07
Give	20	68	05	.52
Support	80	10	-18	.68
Communicate	76	31	05	.68
Protest	43	-16	30	.30
Threaten	06	11	-00	.02
Coerce	-03	00	55	.30
% Total Variance	20.9	9.8	6.2	36.7

Japan to World - Resource Dependence (Cell 4A)

	I	II	h^2
Give	18	78	.66
Support	52	10	.29
Communicate	71	35	.63
Protest	32	-01	.11
Threaten	01	21	.05
% Total Variance	18.5	16.3	34.8

Japan to World - Trade (Cell 5A)

	I	II	h^2
Give	14	02	.02
Support	78	14	.63
Communicate	50	51	.51
Protest	02	66	.44
Threaten	09	10	.02
% Total Variance	17.8	14.6	32.4

World to Japan - All (Cell 1B)

	I	II	h^2
Yield	28	18	.11
Give	51	-01	.26
Support	69	21	.52
Communicate	74	23	.60
Protest	00	68	.46
Threaten	06	39	.16
Coerce	31	-09	.11
% Total Variance	20.9	10.8	31.7

World to Japan - Pol/Mil Security (Cell 2B)

	I	II	III	h^2
Yield	03	00	49	.24
Give	42	35	04	.32
Support	90	-17	19	.88
Communicate	48	-12	-06	.25
Protest	06	-25	-02	.07
Threaten	11	-27	-06	.09
Coerce	09	52	-17	.31
% Total Variance	17.9	8.4	4.6	30.9

World to Japan - Diplomatic Relations (Cell 3B)

	I	II	III	h^2
Yield	38	-01	-08	.14
Give	46	24	47	.50
Support	81	05	04	.66
Communicate	72	26	21	.64
Protest	12	56	-13	.35
Threaten	00	20	00	.04
Coerce	-02	-10	38	.16
% Total Variance	22.2	7.1	6.4	35.6

World to Japan - Resource Dependence (Cell 4B)

	I	II	h^2
Give	45	08	.21
Support	71	45	.73
Communicate	43	25	.26
Protest	04	08	.01
Threaten	13	52	.29
% Total Variance	18.7	11.2	30.0

World to Japan - Trade (Cell 5B)

	I	II	h^2
Yield	-10	58	.36
Give	31	04	.10
Support	72	-05	.52
Communicate	37	85	.88
Protest	39	06	.16
Threaten	47	01	.22
% Total Variance	19.1	18.3	37.3

Japan to U.S. - All (Cell 1C)

	I	II	III	h^2
Yield	-01	24	-04	.06
Give	14	-23	-00	.08
Support	48	-11	36	.38
Communicate	53	-13	13	.32
Protest	63	22	-10	.46
Threaten	19	61	10	.44
Coerce	04	02	56	.33
% Total Variance	14.0	8.3	7.1	29.6

Japan to U.S. - Pol/Mil Security (Cell 2C)

	I	II	h^2
Yield	-10	36	.14
Give	-02	-10	.01
Support	67	01	.46
Communicate	45	03	.20
Protest	45	37	.35
Threaten	22	54	.34
% Total Variance	15.7	9.5	25.0

Japan to U.S. - Diplomatic Relations (Cell 3C)

	I	II	h^2
Give	09	27	.09
Support	70	-18	.54
Communicate	39	19	.19
Protest	52	03	.28
Threaten	11	11	.02
Coerce	-06	13	.02
% Total Variance	26.0	3.1	19.0

Japan to U.S. - Trade (Cell 5C)

	I	II	h^2
Give	06	65	.43
Support	42	14	.20
Communicate	74	25	.62
Protest	62	43	.59
Threaten	36	-07	.14
% Total Variance	25.1	14.3	39.6

U.S. to Japan - All (Cell 1D)

	I	II	III	h^2
Yield	06	55	15	.34
Give	67	-03	21	.51
Support	63	-10	26	.49
Communicate	68	35	-05	.59
Protest	14	05	47	.84
Threaten	-02	-04	-18	.03
Coerce	-05	-02	-01	.004
% Total Variance	19.5	6.5	5.6	31.5

U.S. to Japan - Pol/Mil Security (Cell 2D)

	I	II	III	h^2
Yield	-00	-03	41	.18
Give	38	20	-09	.19
Support	28	14	00	.10
Communicate	86	-17	12	.79
Protest	00	-00	39	.16
Threaten	12	72	-02	.55
Coerce	-03	-01	-03	.03
% Total Variance	14.0	9.0	5.2	28.2

U.S. to Japan - Diplomatic Relations (Cell 3D)

	I	II	h^2
Yield	74	14	.58
Give	34	26	.18
Support	41	64	.59
Communicate	68	-04	.46
Protest	-03	24	.06
Threaten	-05	-05	.01
% Total Variance	22.0	9.6	31.3

U.S. to Japan - Trade (Cell 5D)

	I	II	h^2
Give	85	-03	.72
Support	53	17	.31
Communicate	43	74	.75
Protest	56	-08	.33
Threaten	-07	24	.06
% Total Variance	30.4	13.1	43.4

Japan to USSR - All (Cell 1E)

	I	II	III	h^2
Yield	00	06	47	.22
Give	25	73	36	.75
Support	40	28	02	.25
Communicate	91	15	18	.88
Protest	33	-16	52	.43
Threaten	01	22	-00	.05
Coerce	-03	-10	02	.01
% Total Variance	16.9	10.7	9.6	37.0

Japan to USSR - Pol/Mil Security (Cell 2E)

	I	II	III	h^2
Give	12	-03	33	.12
Support	40	-13	11	.20
Communicate	74	27	02	.62
Protest	02	76	06	.58
Threaten	-02	12	68	.48
% Total Variance	14.6	13.8	11.8	40.0

Japan to USSR - Diplomatic Relations (Cell 3E)

	I	II	III	h^2
Yield	-01	-00	-17	.03
Give	60	31	-35	.58
Support	58	-08	18	.38
Communicate	71	38	20	.71
Protest	07	53	11	.30
Threaten	04	10	21	.06
% Total Variance	20.4	9.3	4.7	34.3

Japan to USSR - Resource Dependence (Cell 4E)

	I	II	h^2
Give	36	09	.14
Support	38	51	.41
Communicate	72	06	.54
Protest	29	02	.09
Threaten	-01	65	.44
% Total Variance	17.8	14.4	32.4

USSR to Japan - All (Cell 1F)

	I	II	III	h^2
Yield	-05	-06	59	.37
Give	53	29	23	.44
Support	55	23	21	.42
Communicate	69	11	-08	.50
Protest	32	-15	-04	.13
Threaten	02	04	06	.01
Coerce	06	66	00	.45
% Total Variance	17.0	9.1	6.8	33.1

USSR to Japan - Pol/Mil Security (Cell 2E)

	I	II	III	h^2
Yield	25	02	-02	.07
Give	39	53	-03	.43
Support	53	12	15	.33
Communicate	14	00	11	.03
Protest	43	-06	-02	.19
Threaten	-02	-03	65	.44
Coerce	-08	48	-01	.24
% Total Variance	10.4	7.7	6.8	24.7

USSR to Japan - Diplomatic Relations (Cell 3F)

	I	II	III	h^2
Yield	21	-26	63	.51
Give	63	01	07	.42
Support	56	09	08	.34
Communicate	69	61	-05	.88
Protest	04	22	-03	.06
Threaten	00	12	-02	.02
Coerce	37	-38	-32	.29
% Total Variance	20.2	9.6	6.0	36.0

USSR to Japan - Resource Dependence (Cell 4F)

	I	II	h^2
Give	78	13	.64
Support	67	20	.49
Communicate	21	52	.32
Protest	12	23	.07
Threaten	-00	-19	.04
% Total Variance	22.7	8.3	31.2

Japan to PRC - All (Cell 1G)

	I	II	h^2
Give	31	48	.33
Support	66	23	.49
Communicate	84	09	.73
Protest	29	-04	.09
Threaten	-04	38	.15
Coerce	06	04	.01
% Total Variance	22.4	7.4	30.0

Japan to PRC - Diplomatic Relations (Cell 3G)

	I	II	h^2
Give	39	51	.41
Support	63	02	.41
Communicate	83	-08	.70
Protest	27	-33	.08
Threaten	-00	11	.01
% Total Variance	26.6	5.6	32.2

Japan to PRC - Trade (Cell 5G)

	I	II	h^2
Give	01	20	.04
Support	62	19	.44
Communicate	55	15	.54
Protest	27	-10	.09
% Total Variance	19.7	3.0	22.8

PRC to Japan - All (Cell 1H)

	I	II	h^2
Give	56	-13	.33
Support	80	02	.66
Communicate	82	30	.77
Protest	24	81	.73
Threaten	-04	19	.04
% Total Variance	34.1	16.4	50.6

PRC to Japan - Diplomatic Relations (Cell 3H)

	I	II	h^2
Give	54	05	.29
Support	88	07	.80
Communicate	72	32	.63
Protest	13	91	.87
Threaten	04	24	.06
% Total Variance	32.5	20.4	53.0

PRC to Japan - Trade (Cell 5H)

	I	II	h^2
Give	00	47	.23
Support	10	71	.53
Communicate	70	23	.56
Protest	63	-06	.41
% Total Variance	23.2	20.2	43.3

Japan to Asia - All (Cell 1I)

	I	II	III	h^2
Yield	01	01	64	.41
Give	30	-19	09	.14
Support	70	07	-14	.52
Communicate	92	01	14	.87
Protest	35	41	-10	.32
Threaten	12	93	07	.90
Coerce	-08	24	00	.07
% Total Variance	22.6	16.7	6.9	46.1

Japan to Asia - Diplomatic Relations (Cell 3I)

	I	II	III	h^2
Yield	00	20	50	.30
Give	32	-10	31	.22
Support	51	08	-09	.28
Communicate	98	16	01	1.01
Protest	18	39	-20	.23
Threaten	00	61	09	.39
Coerce	03	06	-15	.03
% Total Variance	19.7	8.9	6.4	35.1

Japan to Asia - Resource Dependence (Cell 4I)

	I	II	h^2
Give	13	-02	.02
Support	56	38	.47
Communicate	69	06	.49
Protest	-00	23	.06
% Total Variance	20.9	5.2	26.0

Japan to Asia - Trade (Cell 5I)

	I	II	III	h^2
Give	44	-13	-17	.25
Support	83	24	11	.78
Communicate	56	-00	-05	.33
Protest	-03	-01	43	.19
Threaten	01	53	-02	.28
% Total Variance	24.7	7.3	4.6	36.6

Asia to Japan - All (Cell 1J)

	I	II	III	h^2
Yield	18	84	07	.76
Give	27	-02	02	.08
Support	76	22	09	.64
Communicate	98	10	08	.90
Protest	12	07	68	.50
Threaten	01	-09	60	.38
Coerce	-00	43	-06	.19
% Total Variance	22.7	14.1	12.5	49.3

Asia to Japan - Diplomatic Relations (Cell 3J)

	I	II	III	h^2
Yield	45	-03	-08	.21
Give	19	24	48	.34
Support	76	24	10	.65
Communicate	76	25	36	.79
Protest	17	44	-01	.23
Threaten	-00	45	-00	.20
Coerce	-03	-10	26	.08
% Total Variance	20.7	8.5	6.5	35.7

Asia to Japan - Resource Dependence (Cell 4J)

	I	II	III	h^2
Give	-00	39	06	.17
Support	84	03	-05	.71
Communicate	80	04	20	.70
Protest	-08	-36	24	.20
Threaten	-03	-00	-20	.05
% Total Variance	27.4	5.9	3.1	36.6

Asia to Japan - Trade (Cell 5J)

	I	II	h^2
Give	29	-39	.24
Support	65	-09	.43
Communicate	87	-04	.76
Protest	10	37	.15
Threaten	-07	18	.04
% Total Variance	25.6	6.8	32.4